Fundamentals of Advanced Accounting

Fischer/Taylor/Cheng

CHAPTER 1

UNDERSTANDING THE ISSUES

1. (a) horizontal combination—both are marine engine manufacturers
(b) vertical combination—manufacturer buys distribution outlets
(c) conglomerate—unrelated businesses

2. By accepting cash in exchange for the net assets of the company, the seller would have to recognize an immediate taxable gain. However, if the seller were to accept common stock of another corporation instead, the seller could construct the transaction as a tax-free reorganization. The seller could then account for the transaction as a tax-free exchange. The seller would not pay taxes until the shares received were sold.

3.

Identifiable assets (fair value)	$600,000
Deferred tax liability ($200,000 × 40%)	(80,000)
Net assets	$520,000
Goodwill [($850,000 – $520,000) ÷ 60%]	$550,000
Deferred tax liability ($550,000 × 40%)	(220,000)
Net goodwill	$330,000

4. (a) The net assets and goodwill will be recorded at their full fair value on the books of the parent on the date of acquisition.
(b) The net assets will be "marked up" to fair value and goodwill will be recorded at the end of the fiscal year when the consolidated financial statements are prepared through the use of a consolidated worksheet.

5. Puncho will record the net assets at their fair value of $800,000 on its books. Also, Puncho will record goodwill of $100,000 ($900,000 – $800,000) resulting from the excess of the price paid over the fair value. Semos will record the removal of its net assets at their book values. Semos will record a gain on the sale of business of $500,000 ($900,000 – $400,000).

6.

Zone Analysis	Group Total	Cumulative Total
Priority	$ 20,000	$ 20,000
Nonpriority	500,000	520,000

(a) This price exceeds the fair value of all accounts and allows for goodwill.

Current assets (fair value)	$120,000
Land (fair value)	80,000
Liabilities (fair value)	(100,000)
Building & equipment (fair value)	400,000
Customer list (fair value)	20,000
Goodwill	280,000
Extraordinary gain	—
	$800,000

(b) This price is a bargain. The nonpriority accounts are discounted. There is $430,000 ($450,000 – $20,000 to priority accounts) available to be allocated to these accounts.

Current assets (fair value)	$120,000
Liabilities (fair value)	(100,000)
Land [(80 ÷ 500) × $430,000]	68,800
Building & equipment [(400 ÷ 500) × $430,000]	344,000
Customer list [(20 ÷ 500) × $430,000]	17,200
Goodwill	—
Extraordinary gain	—
Total	$450,000

(c) This price creates an extraordinary gain. Only priority accounts are recorded.

Current assets (fair value)	$120,000
Liabilities (fair value)	(100,000)
Building & equipment (no amount available)	—
Customer list (no amount available)	—
Goodwill	—
Extraordinary gain	(5,000)
Total	$ 15,000

7. (a) Direct cost—Included with the price paid to assign values to net assets, and possibly to goodwill.

(b) Direct cost—Included with the price paid to assign values to net assets, and possibly to goodwill.
(c) Direct cost—Included with the price paid to assign values to net assets, and possibly to goodwill.
(d) Issue cost—Deducted from the amount assigned to stock issued in the combination.
(e) Indirect cost—Expensed in the current period.

8. (a) Additional goodwill is recorded because the target was met. The entry would take the following form:

Goodwill (fair value of stock issued)
  Common Stock (par value of stock issued)
  Paid-In Capital in Excess of Par (fair value of stock issued minus par value)

(b) In this case, the paid-in capital in excess of par account is reduced for the par value of the additional shares to be issued. The fair value of the stock originally issued is being devalued.

The entry would take the following form:

Paid-In Capital in Excess of Par (par value of additional shares issued)
  Common Stock (par value of additional shares issued)

EXERCISES

EXERCISE 1-1

Current-year income using the purchase method:

Combined Net Income
Year Ended December 31, 20xx

Sales [$800,000 + (1/2 × $500,000)]	$1,050,000
Less:	
Cost of goods sold [$400,000 + (1/2 × $300,000)]	550,000
Operating expenses [$150,000 + (1/2 × $75,000)]	187,500
Goodwill amortization*	10,000
Other expenses [$50,000 + (1/2 × $25,000)]	62,500
Net income	$ 240,000

*Purchase price	$ 400,000	
Book value of net assets	200,000	
Goodwill	$ 200,000	
Divide by	÷ 10 years	
Amortization amount	$ 20,000	½ year = $10,000

Current-year income using the pooling method:

Combined Net Income
Year Ended December 31, 1998

Sales ($800,000 + $500,000)	$1,300,000
Less:	
Cost of goods sold ($400,000 + $300,000)	700,000
Operating expenses ($150,000 + $75,000)	225,000
Other expenses ($50,000 + $25,000)	75,000
Net income	$ 300,000

EXERCISE 1-2

(1) Current Assets	100,000	
Land	75,000	
Building	300,000	
Equipment	275,000	
Goodwill	167,000	
Liabilities		102,000
Cash (includes direct acquisition costs)		815,000

Exercise 1-2, Concluded

(2) Cash	800,000	
Liabilities	100,000	
Accumulated Depreciation—Building	200,000	
Accumulated Depreciation—Equipment	100,000	
Current Assets		80,000
Land		50,000
Building		450,000
Equipment		300,000
Gain on Sale of Business		320,000

Note: Seller does not receive direct acquisition costs.

(3) Investment in Cardinal Company	815,000	
Cash		815,000

Note: At year-end, Cardinal would be consolidated with Benz, as explained in Chapter 2.

EXERCISE 1-3

Cash**	100,000	
Inventory	250,000	
Equipment	220,000	
Land	180,000	
Buildings	300,000	
Discount on Bonds Payable	140,000	
Goodwill*	665,000	
Current Liabilities		80,000
Bonds Payable		550,000
Common Stock		300,000
Paid-In Capital in Excess of Par		900,000
Cash**		25,000

*Total consideration:

Common stock (60,000 shares × $20)	$1,200,000	
Direct acquisition costs	25,000	
Price paid		$1,225,000

Less fair value of assets acquired:

Cash	$ 100,000	
Inventory	250,000	
Current liabilities	(80,000)	
Bonds payable	(410,000)	
Equipment	220,000	
Land	180,000	
Buildings	300,000	
Value of assets acquired		560,000
Excess of total cost over fair value of assets		$ 665,000

**Cash accounts in this entry may be shown as a net amount.

Exercise 1-3, Concluded

In a purchase, assets acquired and liabilities assumed are recorded at fair value. Direct acquisition costs are added to the total purchase price of the acquisition. As an end result, the direct acquisition costs are assigned to Goodwill or to the value of the separable assets in a bargain purchase.

General Expense	30,000	
Cash		30,000
Indirect acquisition costs are expensed.		
Paid-In Capital in Excess of Par	10,000	
Cash		10,000

In a purchase, the costs to register and issue stock are treated as a reduction of the amount received for the stock.

EXERCISE 1-4

Pro Forma Income Statement
Year Ended December 31, 20X2

Sales	$700,000
Less:	
Cost of goods sold ($340,000 + $25,000)	365,000
Operating expenses ($185,000 + $5,250*)	190,250
Other expenses	50,000
Net income	$ 94,750

*Operating expenses had the following adjustments:

Depreciation expense:	
Equipment ($30,000 ÷ 20 years)	$ 1,500
Buildings ($75,000 ÷ 20 years)	3,750
Total adjustments	$ 5,250

EXERCISE 1-5

Purchase Price:

Cash	$180,000
Direct acquisition costs incurred	10,000
Total purchase price	$190,000

Exercise 1-5, Concluded

Zone Analysis	Group Total	Cumulative Group Total
Priority accounts	$140,000	$140,000
Nonpriority accounts	55,000	195,000
Price paid	$190,000	
Assign to priority	140,000	
Assign to nonpriority	50,000	
Goodwill	—	
Extraordinary gain	—	

Journal Entry:

Accounts Receivable*	200,000	
Inventory*	270,000	
Equipment [(40 ÷ 55) × $50,000]	36,364	
Brand-Name Copyright [(15 ÷ 55) × $50,000]	13,636	
Cash		190,000
Current Liabilities*		80,000
Mortgage Payable*		250,000

*Fair value

Dr = Cr check amounts	520,000	520,000

Acquisition Expense**	15,000	
Cash		15,000

**Indirect acquisition costs

EXERCISE 1-6

Purchase Price:

Cash	$125,000
Direct acquisition costs incurred	10,000
Total purchase price	$135,000

Zone Analysis	Group Total	Cumulative Group Total
Priority accounts	$140,000	$140,000
Nonpriority accounts	55,000	195,000
Price paid	$135,000	
Assign to priority	140,000	
Assign to nonpriority	—	
Goodwill	—	
Extraordinary gain	5,000	

Exercise 1-6, Concluded

Journal Entry:

Accounts Receivable*	200,000	
Inventory*	270,000	
Cash		135,000
Current Liabilities*		80,000
Mortgage Payable*		250,000
Extraordinary Gain		5,000

*Fair value

Dr = Cr check amounts	470,000	470,000

Note: There is no amount available to allocate to the nonpriority assets (equipment and brand-name copyrights).

Acquisition Expense**	15,000	
Cash		15,000

**Indirect acquisition costs

EXERCISE 1-7

Purchase Price:	
Cash	$400,000
Direct acquisition costs incurred	18,000
Total purchase price	$418,000

Zone Analysis	Group Total	Cumulative Group Total
Priority accounts	$ 28,000*	$ 28,000
Nonpriority accounts	500,000	528,000
Price paid	$418,000	
Assign to priority	28,000	
Assign to nonpriority	390,000	
Goodwill	—	
Extraordinary gain	—	

*$120,000 current assets – $92,000 liabilities

Assignment and Allocation Schedule

Nonpriority Accounts	Fair Value	Percentage	Amount to Allocate	Allocated or Assigned Amount
Land	$ 80,000	16%	$390,000	$ 62,400
Buildings (net)	250,000	50%	390,000	195,000
Equipment (net)	150,000	30%	390,000	117,000
Patents	20,000	4%	390,000	15,600
Total nonpriority accounts	$500,000	100%		$390,000

Exercise 1-7, Concluded

Journal Entry:

Currents Assets*	120,000	
Land (from schedule)	62,400	
Buildings (net) (from schedule)	195,000	
Equipment (net) (from schedule)	117,000	
Patents (from schedule)	15,600	
Cash		418,000
Liabilities*		92,000
*Fair value		
Dr = Cr check amounts	510,000	510,000
Acquisition Expense**	5,000	
Cash		5,000

**Indirect acquisition costs

EXERCISE 1-8

Purchase Price:

Cash	$ 5,000
Direct acquisition costs incurred	18,000
Total purchase price	$23,000

Zone Analysis	Group Total	Cumulative Group Total
Priority accounts	$ 28,000	$ 28,000
Nonpriority accounts	500,000	528,000
Price paid	$ 23,000	
Assign to priority	28,000	
Assign to nonpriority	—	
Goodwill	—	
Extraordinary gain	5,000	

Journal Entry:

Currents Assets*	120,000	
Cash		23,000
Liabilities*		92,000
Extraordinary Gain		5,000
*Fair value		
Dr = Cr check amounts	120,000	120,000

Note: There is no amount available to allocate to the nonpriority assets (land, buildings, equipment, and patents).

Acquisition Expense**	5,000	
Cash		5,000

**Indirect acquisition costs

EXERCISE 1-9

(1)	Purchase price	$600,000
	Fair value of net assets other than goodwill	400,000
	Goodwill	$200,000

The estimated value of the unit exceeds $600,000, confirming goodwill.

(2)	(a)	Estimated fair value of business units	$520,000
		Book value of Anton net assets, including goodwill	$500,000

No impairment exists.

	(b)	Estimated fair value of business units	$400,000
		Book value of Anton net assets, including goodwill	$450,000

Estimated fair value of business units	$400,000
Fair value of net assets, excluding goodwill	340,000
Re-measured amount of goodwill	$ 60,000
Existing goodwill	200,000
Impairment loss	$140,000

EXERCISE 1-10

Machine = $200,000

Because goodwill (excess of total cost over the fair value of the net assets acquired) resulted from the purchase, the purchase asset may be recorded at its appraised value.

Deferred tax liability = $16,800

In this tax-free exchange, depreciation on $56,000 ($200,000 appraised value) – ($144,000 net book value) of the machine's value is not deductible on future tax returns. The additional tax to be paid as a result of Lewison's inability to deduct the excess value assigned to the machine is $16,800 ($56,000 × 30%).

Goodwill = $116,800 (net of deferred tax liability)

$800,000 – ($700,000 – $16,800)

Recorded as:

Goodwill ($116,800 ÷ 70%)	$166,857
Deferred tax liability (30% × $166,857)	(50,057)
Net of tax goodwill	$116,800

APPENDIX

EXERCISE 1A-1

(1) Calculation of Earnings in Excess of Normal:

Average operating income:

20X1	$ 90,000	
20X2	110,000	
20X3	120,000	
20X4 (subtract $40,000)	100,000	
20X5	130,000	
	$550,000 ÷ 5 years =	
		$110,000

Less normal return on assets:

Accounts receivable	$100,000	
Inventory	125,000	
Land	100,000	
Buildings	300,000	
Equipment	250,000	
Fair value of total assets	$875,000	
Industry normal rate of return	× 12%	
Normal return on assets		105,000
Expected annual earnings in excess of normal		$ 5,000

(a) 5 × $5,000 = $25,000 Goodwill

(b) Capitalize the perpetual yearly earnings at 12%:

$$\text{Goodwill} = \frac{\text{Yearly excess earnings}}{\text{Capitalization rate}}$$

$$= \frac{\$5{,}000}{0.12}$$

$$= \underline{\$41{,}667}$$

(c) Present value of a $5,000 annuity capitalized at 16%. The correct present value factor is found in the "present value of an annuity of $1" table, at 16% for 5 periods. This factor multiplied by the $5,000 yearly excess earnings will result in the present value:

3.2743 × $5,000 = $16,372

(2) The goodwill recorded would be $25,000. The journal entry would be:

Accounts Receivable	100,000	
Inventory	125,000	
Land	100,000	
Buildings	300,000	
Equipment	250,000	
Goodwill	25,000	
Cash		900,000

PROBLEMS

PROBLEM 1-1

(a) Purchase price $500,000

Zone Analysis	Group Total	Cumulative Total
Priority accounts	$ 9,000	$ 9,000
Nonpriority accounts	348,000	357,000

Price Analysis	
Price paid	$500,000
Assign to priority accounts	9,000
Assign to nonpriority accounts	348,000
Goodwill	143,000
Extraordinary gain	0

Journal Entry:

Accounts Receivable	79,000	
Inventory	120,000	
Other Current Assets	55,000	
Equipment	307,000	
Trademark	27,000	
R&D Expense	14,000	
Goodwill	143,000	
Cash		500,000
Current Liabilities		145,000
Bonds Payable		100,000
Dr = Cr check amounts	745,000	745,000

(b) Purchase price $250,000

Zone Analysis	Group Total	Cumulative Total
Priority accounts	$ 9,000	$ 9,000
Nonpriority accounts	348,000	357,000

Problem 1-1, Continued

Price Analysis

Price paid	$250,000
Assign to priority accounts	9,000
Assign to nonpriority accounts	241,000
Goodwill	0
Extraordinary gain	0

Journal Entry:

Accounts Receivable	79,000	
Inventory	120,000	
Other Current Assets	55,000	
Equipment	212,606	
Trademark	18,698	
R&D Expense	9,696*	
Cash		250,000
Current Liabilities		145,000
Bonds Payable		100,000
Dr = Cr check amounts	495,000	495,000

*R&D Expense was adjusted for rounding difference.

Allocation Tables

Allocation:	Asset	Percent	To Allocate	Amount
Equipment	$307,000	88.2184%	$241,000	$212,606
Trademark	27,000	7.7586%	241,000	18,698
R&D	14,000	4.0230%	241,000	9,696*
Total	$348,000	100%		$241,000

*R&D Expense was adjusted for rounding difference.

(c) Purchase price $5,000

Zone Analysis	Group Total	Cumulative Total
Priority accounts	$ 9,000	$ 9,000
Nonpriority accounts	348,000	357,000

Price Analysis

Price paid	$5,000
Assign to priority accounts	9,000
Assign to nonpriority accounts	0
Goodwill	0
Extraordinary gain	4,000

Problem 1-1, Concluded

Journal Entry:

Accounts Receivable	79,000	
Inventory	120,000	
Other Current Assets	55,000	
Cash		5,000
Current Liabilities		145,000
Bonds Payable		100,000
Extraordinary Gain		4,000
Dr = Cr check amounts	254,000	254,000

PROBLEM 1-2

Purchase Price:	Verk	Kent
Number of shares exchanged	30,000	15,000
Par value of a share of stock	$10	$10
Market value of a share of stock	$40	$40
Market value of stock exchanged	$1,200,000	$600,000
Direct acquisition costs incurred	5,000	4,000
Total purchase price	$1,205,000	$604,000

	Verk Company		Kent Company	
Zone Analysis	Group Total	Cumulative Group Total	Group Total	Cumulative Group Total
Priority accounts	$ 150,000	$150,000	$ 30,000	$ 30,000
Nonpriority accounts	750,000	900,000	480,000	510,000
Price paid	$1,205,000		$604,000	
Assign to priority	150,000		30,000	
Assign to nonpriority	750,000		480,000	
Goodwill	305,000		94,000	
Extraordinary gain	—		—	

Problem 1-2, Concluded

Barker entry to record the purchase of Verk:

Accounts Receivable	200,000	
Inventory	200,000	
Land	300,000	
Buildings	450,000	
Discount on Bonds Payable	10,000	
Goodwill	305,000	
Current Liabilities		160,000
Bonds Payable		100,000
Common Stock (30,000 shares × $10 par)		300,000
Paid-In Capital in Excess of Par		900,000
Cash		5,000

Barker entry to record the purchase of Kent:

Accounts Receivable	80,000	
Inventory	100,000	
Land	80,000	
Buildings	400,000	
Discount on Bonds Payable	5,000	
Goodwill	94,000	
Current Liabilities		55,000
Bonds Payable		100,000
Common Stock		150,000
Paid-In Capital in Excess of Par		450,000
Cash		4,000

Acquisition Expense	13,000	
Cash		13,000

Paid-In Capital in Excess of Par	15,000	
Cash		15,000

To record issue and acquisition costs.

PROBLEM 1-3

Purchase Price:	
Cash	$730,000
Direct acquisition costs incurred	20,000
Total purchase price	$750,000

Zone Analysis	Group Total	Cumulative Group Total
Priority accounts	$ 95,000	$ 95,000
Nonpriority accounts	400,000	495,000
Price paid	$750,000	
Assign to priority	95,000	
Assign to nonpriority	400,000	
Goodwill	255,000	
Extraordinary gain	—	

(1) Purchase entry:

Cash Equivalents	100,000	
Accounts Receivable	120,000	
Inventory	70,000	
Property, Plant, and Equipment	400,000	
Goodwill	255,000	
Current Liabilities		30,000
Long-Term Liabilities		165,000
Cash		750,000

(2) Pro Forma Income:

	Combined Income
Sales	$ 200,000
Less:	
Cost of goods sold ($120,000 + $20,000)	(140,000)
Other expenses	(25,000)
Depreciation (1/20 of $400,000 market value)	(20,000)
Net income	$ 15,000

PROBLEM 1-4

Purchase Price:	Part 1	Part 2
Cash		$385,000
Number of shares exchanged	20,000	
Par value of a share of stock	$10	
Market value of a share of stock	$25	
Market value of stock exchanged	$500,000	
Direct acquisition costs incurred	0	
Total purchase price	$500,000	$385,000

Zone Analysis	Group Total	Cumulative Group Total
Priority accounts	$260,000	$260,000
Nonpriority accounts	160,000	420,000
(1) Price paid	$500,000	
Assign to priority	260,000	
Assign to nonpriority	160,000	
Goodwill	80,000	
Extraordinary gain	0	
(2) Price paid	$385,000	
Assign to priority	260,000	
Assign to nonpriority	125,000	
Goodwill	0	
Extraordinary gain	0	

Kent Corporation journal entries:

(1) Accounts Receivable	50,000	
Inventory	250,000	
Land	40,000	
Building	120,000	
Goodwill	80,000	
Accounts Payable		40,000
Common Stock		200,000
Paid-In Capital in Excess of Par		300,000

Problem 1-4, Concluded

(2)	Accounts Receivable	50,000	
	Inventory	250,000	
	Land	31,250*	
	Building	93,750*	
	Accounts Payable		40,000
	Cash		385,000

*Allocation

Land	$ 40,000	25% × $125,000 =	$ 31,250
Building	120,000	75% × $125,000 =	93,750
	$160,000	100%	$125,000

PROBLEM 1-5

Purchase Price:	
Number of shares exchanged	16,000
Par value of a share of stock	$10
Market value of a share of stock	$265
Market value of stock exchanged	$4,240,000
Direct acquisition costs incurred	12,000
Total purchase price	$4,252,000

Zone Analysis	Group Total	Cumulative Group Total
Priority accounts	$ 1,056,000*	$1,056,000
Nonpriority accounts	1,911,875**	2,967,875
Price paid	$ 4,252,000	
Assign to priority	1,056,000	
Assign to nonpriority	1,911,875	
Goodwill	1,284,125	
Extraordinary gain	0	
*Investments	$ 400,500	
Accounts receivable (net)	912,500	
Inventory	1,200,000	
Prepaid insurance	18,000	
Current liabilities	(1,475,000)	
Total net priority assets	$ 1,056,000	
**Land	$ 70,000	
Buildings (1.25 × $1,473,500)	1,841,875	
Total nonpriority accounts	$ 1,911,875	

Problem 1-5, Concluded

Journal Entry:

Investments	400,500	
Accounts Receivable	1,250,000	
Inventory	1,200,000	
Prepaid Insurance	18,000	
Land (fair value)	70,000	
Machinery and Equipment (125%)	1,841,875	
Goodwill*	1,284,125	
Allowance for Doubtful Accounts		337,500
Current Liabilities		1,475,000
Common Stock (16,000 × $10)		160,000
Paid-In Capital in Excess of Par [(16,000 × $265) – $160,000]		4,080,000
Cash (direct acquisition costs)		12,000

*Excess of consideration over separate fair values.

PROBLEM 1-6

Purchase Price:

Cash	$580,000
Direct acquisition costs incurred	20,000
Total purchase price	$600,000

Zone Analysis	Group Total	Cumulative Group Total
Priority accounts	$(283,500)	$(283,500)
Nonpriority accounts	791,000	507,500

Price paid	$ 600,000
Assign to priority	(283,500)
Assign to nonpriority	791,000
Goodwill	92,500
Extraordinary gain	0

Problem 1-6, Concluded

Journal Entry:

Notes Receivable	24,000	
Accounts Receivable	56,000	
Inventory	30,000	
Other Current Assets	15,000	
Investments	63,000	
Land	55,000	
Building	275,000	
Equipment	426,000	
Patents	20,000	
Trade Names	15,000	
Goodwill	92,500	
Accounts Payable		45,000
Payroll and Benefit-Related Liabilities		12,500
Debt Maturing in One Year		10,000
Long-Term Debt		248,000
Payroll and Benefit-Related Liabilities		156,000
Cash		600,000

PROBLEM 1-7

Purchase Price:

Cash	$290,000
Number of shares exchanged	10,000
Par value of a share of stock	$2
Market value of a share of stock	$20
Market value of stock exchange	$200,000
Direct acquisition costs incurred	—
Total purchase price	$490,000

Zone Analysis	Group Total	Cumulative Group Total
Priority accounts	$(118,000)	$(118,000)
Nonpriority accounts	605,000	487,000

Price paid	$ 490,000
Assign to priority	(118,000)
Assign to nonpriority	605,000
Goodwill	3,000
Extraordinary gain	0

Problem 1-7, Concluded

Journal Entry:

Notes Receivable	33,000	
Inventory	80,000	
Prepaid Expenses	15,000	
Investments	55,000	
Discount on Bonds Payable	30,000	
Land	90,000	
Buildings	170,000	
Equipment	250,000	
Vehicles	25,000	
Franchise	70,000	
Goodwill	3,000	
Accounts Payable		63,000
Taxes Payable		15,000
Interest Payable		3,000
Bonds Payable		250,000
Cash		290,000
Common Stock		20,000
Paid-In Capital in Excess of Par		180,000

PROBLEM 1-8

(1)

Purchase Price:

Cash	$23,000
Direct acquisition costs incurred	0
Total purchase price	$23,000

Zone Analysis	Group Total	Cumulative Group Total
Priority accounts	$ 25,000	$ 25,000
Nonpriority accounts	151,000	176,000

Price paid	$ 23,000
Assign to priority	25,000
Assign to nonpriority	0
Goodwill	0
Extraordinary gain	2,000

Problem 1-8, Concluded

Journal Entry:

Accounts Receivable	87,000	
Inventory	30,000	
Other Current Assets	8,000	
Accounts Payable		56,000
Accrued Liabilities		14,000
Notes Payable		30,000
Extraordinary Gain		2,000
Cash		23,000

(2)

Purchase Price:

Cash	$45,000
Direct acquisition costs incurred	0
Total purchase price	$45,000

Zone Analysis	Group Total	Cumulative Group Total
Priority accounts	$ 25,000	$ 25,000
Nonpriority accounts	151,000	176,000

Price paid	$ 45,000
Assign to priority	25,000
Assign to nonpriority	20,000
Goodwill	0
Extraordinary gain	0

Journal Entry:

Accounts Receivable	87,000	
Inventory	30,000	
Other Current Assets	8,000	
Equipment [($80,000/$151,000) × $20,000]	10,596	
Vehicles [($71,000/$151,000) × $20,000]	9,404	
Accounts Payable		56,000
Accrued Liabilities		14,000
Notes Payable		30,000
Cash		45,000

PROBLEM 1-9

Name of Acquiring Company: Arthur Enterprises
Name of Acquired Company: Ann's Tool Company
Pro Forma Income Statement
For the Year Ending December 31, 20X1

Tax rate expressed as 0.3 for 30%:

Income Statement Accounts	Arthur Enterprises	Ann's Tool Co.	Adjustments Debit	Adjustments Credit	Pro Forma Combined Income Statement
Sales revenue	(550,000)		(140,000)		
Cost of goods sold	200,000		50,000	(1)	2,000
Gross profit	(350,000)		(90,000)		
Selling expenses	125,000		30,000		155,000
Administrative expenses	150,000		45,000		195,000
Depreciation expense—Arthur	13,800				13,800
Depreciation expense—Ann's Tool		7,500		(2) 7,500	13,500
Depreciation—buildings			(3) 5,000		
Depreciation—equipment			(4) 7,000		
Depreciation—truck			(5) 1,500		
Amortization expense—Arthur	5,600				5,600
Amortization expense—Ann's Tool		2,000		(6) 2,000	10,000
Amortization of patent			(7) 3,000		
Amortization of computer software			(8) 5,000		
Amortization of copyright			(9) 2,000		
Total operating expenses	294,400		84,500		
Net operating income	(55,600)		(5,500)		
Nonoperating revenues and expenses					
Interest expense		4,000			4,000
Interest income	(7,000)				(7,000)
Dividend income	(4,000)				(4,000)
Total nonoperating revenues and expenses					(7,000)
Income before taxes	(66,600)		(1,500)	23,500	11,500
Provision for income taxes	19,980		450		16,8
Net income	(46,620)		(1,050)		

1. Reduce inventory to fair value.
2. Remove Ann's depreciation based on book values.
3–5. Depreciation of Ann's assets based on fair value.
6. Remove Ann's amortization based on book value.
7. Patent amortization based on fair value.
8. Amortization of computer software.
9. Amortization of copyright.

PROBLEM 1-10

(a)

Purchase Price:	
Number of shares exchanged	10,000
Par value of a share of stock	$5
Market value of a share of stock	$27
Market value of stock exchanged	$270,000
Direct acquisition costs incurred	10,000
Total purchase price	$280,000

Zone Analysis	Group Total	Cumulative Group Total
Priority accounts	$ 36,000	$ 36,000
Nonpriority accounts	213,000	249,000
Price paid	$280,000	
Assign to priority	36,000	
Assign to nonpriority	213,000	
Goodwill	31,000	
Extraordinary gain	0	

Journal Entry:

Accounts Receivable	15,000	
Inventory	40,000	
Prepaid Expenses	12,000	
Investments	33,000	
Land	40,000	
Building	85,000	
Equipment	50,000	
Patent	12,000	
Copyright	26,000	
Goodwill	31,000	
Accounts Payable		22,000
Interest Payable		2,000
Notes Payable		40,000
Cash		10,000
Common Stock		50,000
Paid-In Capital in Excess of Par		220,000

Problem 1-10, Concluded

(b)

Name of Acquiring Company: Garden International
Name of Acquired Company: Iris Company
Pro Forma Income Statement
For the Year Ending December 31, 20X1

Tax rate expressed as 0.4 for 40%:

Income Statement Accounts	Garden International	Iris Company	Adjustments Debit		Adjustments Credit		Pro Forma Combined Income Statement
Sales revenue	(350,000)		(125,000)				
Cost of goods sold	147,000		55,000	(3)	2,000		
Gross profit	(203,000)		(70,000)				
Selling expenses	100,000		20,000				120,000
Administrative expenses	50,000		30,000				80,000
Depreciation expense—Garden	12,500						12,500
Depreciation expense—Iris		8,600				(1) 8,600	9,000
Depreciation—buildings			(4)	4,000			
Depreciation—equipment			(5)	5,000			
Amortization expense—Garden	1,000						1,000
Amortization expense—Iris		3,900				(2) 3,900	3,800
Amortization of patent			(6)	1,200			
Amortization of copyright			(7)	2,600			
Total operating expenses	163,500		62,500				
Operating income	(39,500)		(7,500)				
Nonoperating revenues and expenses							
Interest expense		3,000					3,000
Investment income	(12,000)		(4,500)				(16,500)
Total nonoperating revenues and expenses							(13,500)
Income before taxes	(51,500)		(9,000)		14,800		12,500
Provision for income taxes	20,600		3,600				
Net income	(30,900)		(5,400)				

1. Remove depreciation based on book value.
2. Remove amortization based on book value.
3. Increase cost of goods sold to reflect fair value of beginning inventory.
4–5. Depreciation based on fair value.
6. Patent amortization.
7. Copyright amortization.

PROBLEM 1-11

Current Assets	150,000	
Equipment ($100,000 increase)	300,000	
Land and Buildings	250,000	
Goodwill*	200,000	
Bonds Payable		200,000
Deferred Tax Liability ($30,000 + $60,000)		90,000
Common Stock ($10 par)		100,000
Paid-In Capital in Excess of Par		500,000
Cash (direct acquisition costs)		10,000

*Price paid (10,000 shares × $60 fair value + $10,000 direct acquisition costs)		$610,000
Fair value of net assets:		
Current assets	$ 150,000	
Equipment	300,000	
Deferred tax liability [30% × ($300,000 – $200,000)]	(30,000)	
Land and buildings	250,000	
Bonds payable	(200,000)	470,000
Excess attributable to goodwill (net of deferred tax liability)		$140,000

Recorded as:		
Goodwill ($140,000 ÷ 70%)	$ 200,000	
Deferred tax liability (30% × $200,000)	(60,000)	
Net of tax goodwill	$ 140,000	

Paid-In Capital in Excess of Par	3,000	
Cash		3,000

PROBLEM 1A-1

(1) Bonds

Present value of interest payments for 5 years at 8%, $27,000 × 3.9927	$107,803
Present value of principal due in 5 years at 8%, $300,000 × 0.6806	204,180
Present value of bonds	$311,983

Goodwill

Expected return ($120,000 + $140,000 + $150,000 + $160,000 + $180,000) ÷ 5	$150,000
Normal return on assets ($150,000 + $200,000 + $700,000) × 10%	105,000
Profit in excess of normal return	$ 45,000
Present value of excess of normal return for 5 years at 16%, $45,000 × 3.2743	$147,344

(2)	Cash and Receivables	150,000	
	Inventory	200,000	
	Land	100,000	
	Building	600,000	
	Goodwill	147,344	
	Current Liabilities		120,000
	9% Bonds Payable		300,000
	Premium on Bonds Payable		11,983
	Cash		765,361

CASES

CASE 1-1

(a)	Price paid ($55 × 264,662,707 shares)	$14,556,448,885
	Book value of net assets	3,945,000,000
	Excess	$10,611,448,885

(b)	40-year amortization period for goodwill:	
	Net income	$ 357,000,000
	Less: [($10,611 million ÷ 40 years) × 62%]	164,470,500
		$ 192,529,500
	There is no amortization of goodwill:	
	Net income	$ 357,000,000

CASE 1-2

(1) Confirmation:

Building	
pmt	80,000
n	20
rate	0.14
PV	529,850
Land	(200,000)
Balance, building	329,850
Patent	
pmt	40,000
n	4
rate	0.2
PV	103,550
Mortgage payable	
pmt	50,000
n	5
rate	0.07
PV	205,010

Case 1-2, Continued

(2) Discounted cash flows:

Period	Operating Capital	Salvage	Total
1	150,000		150,000
2	165,000		165,000
3	181,500		181,500
4	199,650		199,650
5	219,615	(100,000)	119,615
6	219,615		219,615
7	219,615		219,615
8	219,615		219,615
9	219,615		219,615
10	219,615	(120,000)	99,615
11	219,615		219,615
12	219,615		219,615
13	219,615		219,615
14	219,615		219,615
15	219,615	(130,000)	89,615
16	219,615		219,615
17	219,615		219,615
18	219,615		219,615
19	219,615		219,615
20	219,615	300,000	519,615

Rate	0.12
NPV	1,406,859

(3) Fair value comparison:

NPV of cash flows	$1,406,859
Total paid price for net assets ..	1,300,000
Excess of fair value	$ 106,859

(4) Entry to record purchase:

Cash Equivalents	80,000	
Inventory	150,000	
Accounts Payable	180,000	
Land	200,000	
Building	329,850	
Equipment	220,000	
Patent	103,550	
Goodwill	361,610	
Current Liabilities		120,000
Mortgage Payable		205,010
Cash		1,300,000
Dr = Cr check amounts	1,625,010	1,625,010

Case 1-2, Concluded

(5) Impairment test:

Implied fair value of Frontier.....	$1,200,000
Book value, including goodwill	1,300,000

Book value exceeds implied fair value, goodwill is impaired.

Impairment adjustment:

Implied fair value of Frontier.....	$1,200,000
Fair value of net identifiable assets (without goodwill)	1,020,000
Implied remaining goodwill.....	180,000
Recorded goodwill	(361,610)
Required adjustment.....	(181,610)

Goodwill Impairment Loss.....	181,610	
Goodwill.....		181,610

CHAPTER 2

UNDERSTANDING THE ISSUES

1. a. Johnson has a passive level of ownership and in future periods will record dividend income of only 10% of Bickler's declared dividends.

b. Johnson has an influential level of ownership and in future periods will record investment income of 30% of Bickler's net income.

c. Johnson has a controlling level of ownership and in future periods will add 100% of Bickler's net income to its own net income. Bickler's nominal account balances will be added to Johnson's nominal account balances, which results in consolidated net income.

d. Johnson has a controlling level of ownership and in future periods will add 80% of Bickler's net income to its own net income. Bickler's nominal account balances will be added to Johnson's nominal account balances. This will result in consolidated net income with a distribution to the noncontrolling interest equal to 20% of Bickler's income.

2. Corporation: The parent must have the right to appoint or elect a majority of the board members. Aside from majority ownership, the parent could gain control by holding securities that can be converted into common stock. Also, if the parent holds a large noncontrolling interest that is three times larger than any other owner or group, the parent is deemed to have control. Finally, the corporate charter, bylaws, or some other agreement may grant control to the parent.

Partnership: Two things must be true: (1) The parent is the only general partner in a limited partnership or has the unilateral right to assume this role. (2) No other partner or group of partners has the power to dissolve the partnership or remove the general partner.

3. The elimination process serves to make the consolidated financial statements appear as though the parent had purchased the net assets of the subsidiary. The investment account and the subsidiary equity accounts are eliminated and replaced by the subsidiary's net assets.

4. a. Net Assets – marked up $200,000 ($600,000 – $400,000)
Goodwill – $300,000 ($900,000 – $600,000)

b. Net Assets – marked up $160,000 [($600,000 – $400,000) × 80%]
Goodwill – $240,000 [$720,000 – (80% × $600,000)]

5. Zone Analysis

	Group Total	Cumulative Total
Priority	$ 50,000	$ 50,000
Nonpriority	800,000	850,000

a. $1,000,000 – $350,000 = $650,000 excess

Current assets	$ 50,000
Fixed assets	450,000
Goodwill	150,000
	$650,000

b. $500,000 – $350,000 = $150,000 excess

Current assets	$ 50,000
Fixed assets	100,000
	$150,000

5. (Concluded)

c. $30,000 – $350,000 = ($320,000) shortage

Current assets	$ 50,000
Fixed assets	(350,000)
Extraordinary gain	(20,000)
	$(320,000)

6. Zone Analysis

	Group Total	Ownership Share	Cumulative Total
Priority	$ 50,000	$ 40,000	$ 40,000
Nonpriority	800,000	640,000	680,000

a. $800,000 – (80% × $350,000) = $520,000 excess

Current assets ($50,000 difference × 80%)	$ 40,000
Fixed assets ($450,000 difference × 80%)	360,000
Goodwill	120,000
	$520,000

b. $600,000 – (80% × $350,000) = $320,000 excess

Current assets ($50,000 difference × 80%)	$ 40,000	
Depreciable assets (balance)	280,000	(maximum = $360,000)
	$320,000	

c. $30,000 – (80% × $350,000) = ($250,000) shortage

Current assets ($50,000 × 80%)	$ 40,000
Fixed assets ($350,000 × 80%)	(280,000)
Extraordinary gain	(10,000)
	$(250,000)

7. NCI = $70,000 [($200,000 + $350,000 – $200,000) × 20%]. The NCI account will be displayed on the consolidated balance sheet as a subdivision of equity. It is shown as a total, not broken down into par, paid-in capital, and retained earnings.

EXERCISES

EXERCISE 2-1

Solara Corporation
Pro Forma Income Statement

	10%	20%	70%	
Sales	$640,000	$640,000	$1,010,000	
Cost of goods sold	300,000	300,000	530,000	
Gross profit	$340,000	$340,000	$ 480,000	
Selling and administrative expenses	120,000	120,000	195,000	
Operating income	$220,000	$220,000		
Dividend income (10% × $15,000 dividends)	1,500			
Investment income (20% × $65,000 reported income)		13,000		
Net income	$221,500	$233,000	$ 285,000	
Noncontrolling interest (30% × $65,000 reported income)				19,500
Controlling interest				$ 265,500

EXERCISE 2-2

(1) (a)	Cash	20,000*	
	Accounts Receivable	70,000	
	Inventory	100,000	
	Property, Plant, and Equipment (net)	290,000	
	Goodwill	230,000	
	Current Liabilities		80,000
	Bonds Payable		100,000
	Cash		530,000*

*Cash may be shown as a net credit of $510,000.

Exercise 2-2, Concluded

(b)

Glass Company
Balance Sheet

Assets

Current assets:		
Cash	$ 30,000	
Accounts receivable	120,000	
Inventory	150,000	$ 300,000
Property, plant, and equipment (net)		520,000
Goodwill		230,000
Total assets		$1,050,000

Liabilities and Stockholders' Equity

Liabilities:		
Current liabilities	$220,000	
Bonds payable	350,000	$ 570,000
Stockholders' equity:		
Common stock	$200,000	
Retained earnings	280,000	480,000
Total liabilities and stockholders' equity		$1,050,000

(2) (a)

Investment in Plastic	530,000	
Cash		530,000

(b) Investment in Plastic appears as a long-term investment on Glass's unconsolidated balance sheet.

(c) The balance sheet would be identical to that which resulted from the asset acquisition of part (1).

EXERCISE 2-3

Vase Company's Balance Sheet before Purchase

	Book Value	Fair Value		Book Value	Fair Value	
Priority assets:						
Cash equivalents	60,000	60,000	Current liabilities	60,000	60,000	
Inventory	120,000	160,000				
Total priority assets	**180,000**	**220,000**	**Total liabilities**		**60,000**	
60,000						
Nonpriority assets:						
Land	50,000	100,000	Stockholders' equity:			
Building (net)	200,000	300,000	Common stock	100,000		
			Paid-in capital in excess of par	150,000		
			Retained earnings	120,000		
Total nonpriority assets	**250,000**	**400,000**	Total equity		370,000	
Existing goodwill			**Value of**			
Total assets	**430,000**	**620,000**	**net assets**		**370,000**	**560,000**

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$160,000	$160,000	$160,000
Nonpriority accounts	400,000	400,000	560,000

(1) Goodwill will be recorded if the price is above $560,000.
(2) The fixed assets will be recorded at less than fair value if the price is below $560,000.
(3) An extraordinary gain will be recorded if the price is below $160,000.

EXERCISE 2-4

(1)

Investment in Pine Inc.	960,000	
Cash		960,000
Indirect Costs Expense	3,000	
Cash		3,000

(2)

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$150,000	$150,000	$150,000
Nonpriority accounts	700,000	700,000	850,000

Exercise 2-4, Concluded

Price Analysis

Price	$960,000	
Assign to priority accounts	150,000	full value
Assign to nonpriority accounts	700,000	full value
Goodwill	110,000	

Determination and Distribution of Excess Schedule

Price paid for investment		$960,000
Less book value interest acquired:		
Common stock	$300,000	
Paid-in capital in excess of par	380,000	
Retained earnings	20,000	
Total equity	$700,000	
Interest acquired	× 100%	700,000
Excess of cost over book value (debit)		$260,000
Adjustments:		
Inventory		$ 50,000
Land		—
Bonds payable		—
Depreciable fixed assets (net)		100,000
Goodwill		110,000
Extraordinary gain		—
Total adjustments		$260,000

(3) Elimination entries:

Common Stock ($10 par)	300,000	
Paid-In Capital in Excess of Par	380,000	
Retained Earnings	20,000	
Investment in Pine Inc.		700,000
Inventory	50,000	
Depreciable Fixed Assets	100,000	
Goodwill	110,000	
Investment in Pine Inc.		260,000

EXERCISE 2-5

(1)

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$ 55,000	$ 55,000	$ 55,000
Nonpriority accounts	830,000	830,000	885,000

Goodwill would be recorded if the price is above $885,000.

Exercise 2-5, Continued

(2) An extraordinary gain would be recorded if the price is below $55,000.

(3)

Price Analysis

Price	$1,000,000	
Assign to priority accounts	55,000	full value
Assign to nonpriority accounts	830,000	full value
Goodwill	115,000	

Determination and Distribution of Excess Schedule

Price paid for investment		$1,000,000
Less book value interest acquired:		
Common stock	$200,000	
Paid-in capital in excess of par	300,000	
Retained earnings	175,000	
Total equity	$675,000	
Interest acquired	× 100%	675,000
Excess of cost over book value (debit)		$ 325,000
Adjustments:		
Inventory		$ 15,000
Land		—
Bonds payable		(10,000)
Depreciable fixed assets		200,000
Computer software		5,000
Goodwill		115,000
Extraordinary gain		—
Total adjustments		$ 325,000

Elimination entries:

Common Stock ($5 par)	200,000	
Paid-In Capital in Excess of Par	300,000	
Retained Earnings	175,000	
Investment in Gemini Company		675,000
Inventory	15,000	
Depreciable Fixed Assets	200,000	
Computer Software	5,000	
Goodwill	115,000	
Premium on Bonds Payable		10,000
Investment in Gemini Company		325,000

Exercise 2-5, Concluded

(4) Price Analysis

Price	$810,000	
Assign to priority accounts	55,000	full value
Assign to nonpriority accounts	755,000	allocate
Goodwill	—	
Extraordinary gain	—	

Determination and Distribution of Excess Schedule

Price paid for investment		$810,000
Less book value interest acquired:		
Common stock	$200,000	
Paid-in capital in excess of par	300,000	
Retained earnings	175,000	
Total equity	$675,000	
Interest acquired	× 100%	675,000
Excess of cost over book value (debit)		$135,000
Adjustments:		
Inventory		$ 15,000
Bonds payable		(10,000)
Depreciable fixed assets		136,747
Computer software		(6,747)
Goodwill		—
Extraordinary gain		—
Total adjustments		$135,000

Allocation Tables

	Market	Percent	Available	Assign	Book	Adjust
Depreciable fixed assets	700,000	84%	755,000	636,747	500,000	136,747
Computer software	130,000	16%		755,000	118,253	125,000
	(6,747)					
Total to other fixed assets	830,000	100%		755,000	625,000	130,000

Elimination entries:

Common Stock ($5 par)	200,000	
Paid-In Capital in Excess of Par	300,000	
Retained Earnings	175,000	
Investment in Gemini Company		675,000
Inventory	15,000	
Depreciable Fixed Assets	136,747	
Premium on Bonds Payable		10,000
Computer Software		6,747

Investment in Gemini Company	135,000

EXERCISE 2-6

(1)

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$(140,000)	$(140,000)	$(140,000)
Nonpriority accounts	800,000	800,000	660,000

Price Analysis

Price	$ 620,000	
Assign to priority accounts	(140,000)	full value
Assign to nonpriority accounts	760,000	allocate
Goodwill	—	
Extraordinary gain	—	

Determination and Distribution of Excess Schedule

Price paid for investment		$620,000
Less book value interest acquired:		
Common stock	$ 100,000	
Paid-in capital in excess of par	300,000	
Retained earnings	(50,000)	
Total equity	$ 350,000	
Interest acquired	× 100%	350,000
Excess of cost over book value (debit)		$270,000
Adjustments:		
Inventory		$ (40,000)
Equipment (net)		(55,000)
Mineral rights		415,000
Goodwill		(50,000)
Extraordinary gain		—
Total adjustments		$270,000

Allocation Tables

	Market	Percent	Available	Assign	Book	Adjust
Equipment (net)	100,000	12.5%	760,000	95,000	150,000	(55,000)
Mineral rights	700,000	87.5%	760,000	665,000	250,000	415,000
Total to other fixed assets	800,000	100%			760,000	400,000
						360,000

Exercise 2-6, Concluded

(2) Elimination entries:

Common Stock ($5 par)	100,000	
Paid-In Capital in Excess of Par	300,000	
Retained Earnings		50,000
Investment in Villard Company		350,000
Mineral Rights	415,000	
Inventory		40,000
Equipment		55,000
Goodwill		50,000
Investment in Villard Company		270,000

EXERCISE 2-7

(1)

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$ (180,000)	$(144,000)	$(144,000)
Nonpriority accounts	1,000,000	800,000	656,000

Price Analysis

Price	$ 730,000	
Assign to priority accounts	(144,000)	full value
Assign to nonpriority accounts	800,000	full value
Goodwill	74,000	

Determination and Distribution of Excess Schedule

Price paid for investment		$730,000
Less book value interest acquired:		
Common stock	$ 100,000	
Paid-in capital in excess of par	150,000	
Retained earnings	250,000	
Total equity	$ 500,000	
Interest acquired	× 80%	400,000
Excess of cost over book value (debit)		$330,000
Adjustments:		
Inventory		$ 80,000
Land		80,000
Building (net)		120,000
Equipment (net)		(24,000)
Goodwill		74,000
Extraordinary gain		—
Total adjustments		$330,000

Exercise 2-7, Concluded

(2) Elimination entries:

Common Stock ($5 par)	80,000	
Paid-In Capital in Excess of Par	120,000	
Retained Earnings	200,000	
Investment in Cooker		400,000
Inventory	80,000	
Land	80,000	
Building	120,000	
Goodwill	74,000	
Equipment		24,000
Investment in Cooker		330,000

EXERCISE 2-8

(1)

Zone Analysis	Group Total	80% Ownership Portion	Cumulative Total
Priority accounts	$170,000	$136,000	$136,000
Nonpriority accounts	500,000	400,000	536,000

Price Analysis

Price	$656,000	
Assign to priority accounts	136,000	full value
Assign to nonpriority accounts	400,000	full value
Goodwill	120,000	

Determination and Distribution of Excess Schedule

Price paid for investment		$656,000
Less book value interest acquired:		
Common stock	$ 50,000	
Paid-in capital in excess of par	130,000	
Retained earnings	370,000	
Total equity	$ 550,000	
Interest acquired	× 80%	440,000
Excess of cost over book value (debit)		$216,000
Adjustments:		
Inventory		$ 96,000
Property, plant, and equipment		80,000
Goodwill [$120,000 – (80% × $100,000)]		40,000
Extraordinary gain		—
Total adjustments		$216,000

Exercise 2-8, Concluded

(2) Elimination entries:

Common Stock ($5 par)	40,000	
Paid-In Capital in Excess of Par	104,000	
Retained Earnings	296,000	
Investment in Saturn Company		440,000
Inventory	96,000	
Property, Plant, and Equipment	80,000	
Goodwill	40,000	
Investment in Saturn Company		216,000

(3) Price Analysis

Price	$512,000	
Assign to priority accounts	136,000	full value
Assign to nonpriority accounts	376,000	allocate
Goodwill	—	
Extraordinary gain	—	

Determination and Distribution of Excess Schedule

Price paid for investment		$512,000
Less book value interest acquired:		
Common stock	$ 50,000	
Paid-in capital in excess of par	130,000	
Retained earnings	370,000	
Total equity	$ 550,000	
Interest acquired	× 80%	440,000
Excess of cost over book value (debit)		$ 72,000
Adjustments:		
Inventory		$ 96,000
Property, plant, and equipment [$376,000 – (80% × $400,000)]		56,000
Goodwill		(80,000)
Extraordinary gain		—
Total adjustments		$ 72,000

Elimination entries:

Common Stock ($5 par)	40,000	
Paid-In Capital in Excess of Par	104,000	
Retained Earnings	296,000	
Investment in Saturn Company		440,000
Inventory	96,000	
Property, Plant, and Equipment	56,000	
Goodwill		80,000
Investment in Saturn Company		72,000

EXERCISE 2-9

(1)

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$ (30,000)	$ (30,000)	$ (30,000)
Nonpriority accounts	930,000	930,000	900,000

Price Analysis		
Price	$950,000	
Assign to priority accounts	(30,000)	full value
Assign to nonpriority accounts	930,000	full value
Goodwill	50,000	

Investment in Craig Company	950,000	
Cash		950,000

(2)

Accounts Receivable	20,000	
Land	30,000	
Building	100,000	
Discount on Bonds Payable	20,000	
Goodwill	50,000	
Deferred Tax Liability	10,000	
Retained Earnings	420,000	
Paid-In Capital in Excess of Par		650,000

(3) Elimination entries:

Common Stock	300,000	
Paid-In Capital in Excess of Par	650,000	
Investment in Craig Company		950,000

PROBLEMS

PROBLEM 2-1

(1)

Investment in Daisy Company	650,000	
Common Stock ($10 par)		180,000
Paid-In Capital in Excess of Par		450,000
Cash (direct acquisition costs)		20,000
Paid-In Capital in Excess of Par	5,000	
Cash		5,000

(2)

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$ 75,000	$ 75,000	$ 75,000
Nonpriority accounts	325,000	325,000	400,000

Price Analysis

Price	$650,000	
Assign to priority accounts	75,000	full value
Assign to nonpriority accounts	325,000	full value
Goodwill	250,000	

Determination and Distribution of Excess Schedule

Price paid for investment		$650,000
Less book value interest acquired:		
Common stock	$200,000	
Paid-in capital in excess of par	—	
Retained earnings	140,000	
Total equity	$340,000	
Interest acquired	× 100%	340,000
Excess of cost over book value (debit)		$310,000
Adjustments:		
Inventory		$ 5,000
Land		60,000
Buildings		30,000
Equipment		(35,000)
Goodwill		250,000
Extraordinary gain		—
Total adjustments		$310,000

Problem 2-1, Concluded

(3) Rose Company and Subsidiary Daisy Company
Consolidated Balance Sheet
July 1, 20X6

Assets

Current assets:		
Other assets (including $5,000 cash adjustment for issue costs and $20,000 direct acquisition costs)	$ 95,000	
Inventory (including $5,000 adjustment)	185,000	
		$ 280,000
Long-lived assets:		
Land (including $60,000 increase)	$200,000	
Building (including $30,000 increase)	450,000	
Equipment (including $35,000 decrease)	505,000	
Goodwill	250,000	1,405,000
Total assets		$1,685,000

Liabilities and Stockholders' Equity

Current liabilities		$ 240,000
Stockholders' equity:		
Common stock	$580,000	
Paid-in capital in excess of par*	445,000	
Retained earnings	420,000	
Total stockholders' equity		1,445,000
Total liabilities and stockholders' equity		$1,685,000

*$450,000 – $5,000 stock issuance costs.

PROBLEM 2-2

(1)	Investment in Daisy Company	650,000	
	Common Stock ($10 par)		180,000
	Paid-In Capital in Excess of Par		450,000
	Cash (direct acquisition costs)		20,000
	Paid-In Capital in Excess of Par	5,000	
	Cash		5,000

Problem 2-2, Continued

(2)

Rose Company and Subsidiary Daisy Company
Determination and Distribution of Excess Schedule
July 1, 20X6

Zone Analysis	Group Total	80% Ownership Portion	Cumulative Total
Priority accounts	$ 75,000	$ 60,000	$ 60,000
Nonpriority accounts	325,000	260,000	320,000

Price Analysis

Price	$650,000	
Assign to priority accounts	60,000	full value
Assign to nonpriority accounts	260,000	full value
Goodwill	330,000	

Determination and Distribution of Excess Schedule

Price paid for investment		$650,000
Less book value interest acquired:		
Common stock	$200,000	
Paid-in capital in excess of par	—	
Retained earnings	140,000	
Total equity	$340,000	
Interest acquired	× 80%	272,000
Excess of cost over book value (debit)		$378,000
Adjustments:		
Inventory		$ 4,000
Land		48,000
Building		24,000
Equipment		(28,000)
Goodwill		330,000
Extraordinary gain		—
Total adjustments		$378,000

Problem 2-2, Concluded

(3)

Rose Company and Subsidiary Daisy Company
Consolidated Balance Sheet
July 1, 20X6

Assets

Current assets:		
Other assets (including $5,000 cash adjustment for issue costs and $20,000 direct acquisition costs)	$ 95,000	
Inventory (including $4,000 adjustment)	184,000	
		$ 279,000
Long-lived assets:		
Land (including $48,000 increase)	$188,000	
Building (including $24,000 increase)	444,000	
Equipment (including $28,000 decrease)	512,000	
Goodwill	330,000	
		1,474,000
Total assets		$ 1,753,000

Liabilities and Stockholders' Equity

Current liabilities		$ 240,000
Stockholders' equity:		
Noncontrolling interest*		68,000
Controlling interest:		
Common stock	$580,000	
Paid-in capital in excess of par**	445,000	
Retained earnings	420,000	
Total stockholders' equity		1,445,000
Total liabilities and stockholders' equity		$ 1,753,000

*$68,000 (20% of Daisy's stockholders' equity).
**$450,000 – $5,000 stock issuance costs.

PROBLEM 2-3

(1)

Investment in Express Corporation	400,000	
Cash		400,000

(2)

Carlson Enterprises and Subsidiary Express Corporation
Determination and Distribution Schedule
March 1, 20X6

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$ 15,000	$ 15,000	$ 15,000
Nonpriority accounts	405,000	405,000	420,000

Price Analysis

Price	$400,000	
Assign to priority accounts	15,000	full value
Assign to nonpriority accounts	385,000	allocate
Goodwill	—	
Extraordinary gain	—	

Determination and Distribution of Excess Schedule

Price paid for investment		$400,000
Less book value interest acquired:		
Common stock	$ 50,000	
Paid-in capital in excess of par	250,000	
Retained earnings	70,000	
Total equity	$370,000	
Interest acquired	× 100%	370,000
Excess of cost over book value (debit)		$ 30,000
Adjustments:		
Inventory		$ 20,000
Bonds payable		5,000
Land		(1,500)
Buildings		12,500
Equipment		(6,000)
Goodwill		—
Extraordinary gain		—
Total adjustments		$ 30,000

Problem 2-3, Concluded

Allocation Tables

	Market	Percent	Available	Assign	Book	Adjust
Land	40,500	10%	385,000	38,500	40,000	(1,500)
Buildings	202,500	50%	385,000	192,500	180,000	12,500
Equipment	162,000	40%		385,000	154,000	
160,000	(6,000)					
Total to other fixed assets	405,000	100%		385,000	380,000	
5,000						

(3) Elimination entries:

Common Stock	50,000	
Paid-In Capital in Excess of Par	250,000	
Retained Earnings	70,000	
Investment in Express Corporation		370,000
Inventory	20,000	
Discount on Bonds Payable	5,000	
Buildings	12,500	
Land		1,500
Equipment		6,000
Investment in Express Corporation		30,000

PROBLEM 2-4

(1)	Investment in Robby Corporation	480,000	
	Cash		480,000

(2)

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$ 12,000	$ 12,000	$ 12,000
Nonpriority accounts	405,000	405,000	417,000

Price Analysis

Price	$480,000	
Assign to priority accounts	12,000	full value
Assign to nonpriority accounts	405,000	full value
Goodwill	63,000	

Problem 2-4, Concluded

Determination and Distribution of Excess Schedule

Price paid for investment		$480,000	
Less book value interest acquired:			
Common stock	$ 50,000		
Paid-in capital in excess of par	250,000		
Retained earnings	70,000		
Total equity	$370,000		
Interest acquired	× 100%	370,000	
Excess of cost over book value (debit)		$110,000	
Adjustments:			
Inventory		$ 20,000	debit D1
Bonds payable		2,000	debit D2
Land		15,000	debit D3
Buildings		20,000	debit D4
Equipment		(10,000)	credit D5
Goodwill		63,000	debit D6
Extraordinary gain		—	
Total adjustments		$110,000	

(3)

Retained Earnings	70,000	
Inventory	20,000	
Land	15,000	
Discount on Bonds Payable	2,000	
Buildings	20,000	
Goodwill	63,000	
Equipment		10,000
Paid-In Capital in Excess of Par*		180,000

*$70,000 retained earnings + $110,000 excess of cost.

PROBLEM 2-5

(1)

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$ 40,000	$ 40,000	$ 40,000
Nonpriority accounts	295,000	295,000	335,000

Price Analysis

Price	$475,000	
Assign to priority accounts	40,000	full value
Assign to nonpriority accounts	295,000	full value
Goodwill	140,000	

Problem 2-5, Continued

Determination and Distribution of Excess Schedule

Price paid for investment		$475,000	
Less book value interest acquired:			
Common stock	$ 50,000		
Paid-in capital in excess of par	70,000		
Retained earnings	130,000		
Total equity	$250,000		
Interest acquired	× 100%	250,000	
Excess of cost over book value (debit)		$225,000	
Adjustments:			
Inventory		$ 20,000	debit D1
Bonds payable		(5,000)	credit D2
Land		10,000	debit D3
Buildings and equipment		45,000	debit D4
Copyrights		15,000	debit D5
Goodwill		140,000	debit D6
Extraordinary gain		—	
Total adjustments		$225,000	

(2)

Adam Company and Subsidiary Scott Company
Worksheet for Consolidated Balance Sheet
December 31, 20X1

	Balance Sheet		Eliminations				Consol. Balance Sheet
	Adam	Scott		Debit		Credit	
Cash	160,000	40,000		.....		.....	200,000
Accounts receivable	70,000	30,000		.....		.....	100,000
Inventory	130,000	120,000	(D1)	20,000		.....	270,000
Land	50,000	35,000	(D3)	10,000		.....	95,000
Investment in Scott	475,000	.....		.....	(EL)	250,000	.....
	.....	.....		.....	(D)	225,000	.....
Buildings and equipment	350,000	230,000	(D4)	45,000		.....	625,000
Accumulated depreciation	(100,000)		(50,000)	.....		.....	(150,000)
Copyrights	40,000	10,000	(D5)	15,000		.....	65,000
Goodwill	.....	.....	(D6)	140,000		.....	140,000
Current liabilities	(192,000)		(65,000)	.....		.....	(257,000)
Bonds payable	.....	(100,000)		.....		.....	(100,000)
Discount (premium)	.....	.....		.....	(D2)	5,000	(5,000)
Common stock—Scott	.....	(50,000)	(EL)	50,000		.....	.....
Paid-in capital in excess of par—Scott	.....	(70,000)	(EL)	70,000		.....	.....
Retained earnings—Scott	.....	(130,000)	(EL)	130,000		.....	.....

Common stock—Adam	(100,000)	.....	.....	.....	(100,000)
Paid-in capital in excess of par—Adam	(250,000)	.....	.....	.....	(250,000)
Retained earnings—Adam	(633,000)	.....	.....	.....	(633,000)
Totals	0	0	480,000		480,000
					0

Problem 2-5, Concluded

Eliminations and Adjustments:

(EL) Eliminate investment in subsidiary against subsidiary equity accounts.
(D) Distribute $225,000 excess of cost over book value to:
(D1) Inventory, $20,000.
(D2) Premium on bonds payable, ($5,000).
(D3) Land, $10,000.
(D4) Buildings and equipment, $45,000.
(D5) Copyrights, $15,000.
(D6) Goodwill, $140,000.

PROBLEM 2-6

(1)

Zone Analysis	Group Total	80% Ownership Portion	Cumulative Total
Priority accounts	$ 40,000	$ 32,000	$ 32,000
Nonpriority accounts	295,000	236,000	268,000

Price Analysis

Price	$475,000	
Assign to priority accounts	32,000	full value
Assign to nonpriority accounts	236,000	full value
Goodwill	207,000	

Determination and Distribution of Excess Schedule

Price paid for investment		$475,000	
Less book value interest acquired:			
Common stock	$ 50,000		
Paid-in capital in excess of par	70,000		
Retained earnings	130,000		
Total equity	$250,000		
Interest acquired	× 80%	200,000	
Excess of cost over book value (debit)		$275,000	
Adjustments:			
Inventory		$ 16,000	debit D1
Bonds payable		(4,000)	credit D2
Land		8,000	debit D3
Buildings and equipment		36,000	debit D4
Copyrights		12,000	debit D5
Goodwill		207,000	debit D6
Extraordinary gain		—	
Total adjustments		$275,000	

Problem 2-6, Concluded

(2)

Adam Company and Subsidiary Scott Company
Worksheet for Consolidated Balance Sheet
December 31, 20X1

	Balance Sheet		Eliminations					Consol. Balance
	Adam	Scott		Debit		Credit	NCI	Sheet
Cash	160,000			40,000				
Accounts receivable	70,000			30,000				
Inventory	130,000			120,000	(D1)	16,000		
Land	50,000			35,000	(D3)	8,000		
Investment in Scott	475,000					(EL)	200,000	
					(D)	275,000		
Building and equipment	350,000			230,000	(D4)	36,000		
Accumulated depreciation	(100,000)			(50,000)				
Copyrights	40,000			10,000	(D5)	12,000		
Goodwill			(D6)	207,000				207,
Current liabilities	(192,000)			(65,000)				
Bonds payable		(100,000)						(100
Discount (premium)					(D2)	4,000		(4,0
Common stock—Scott		(50,000)	(EL)	40,000				(10,000)
Paid-in capital in excess of par—Scott		(70,000)	(EL)	56,000				(14,000)
Retained earnings—Scott		(130,000)	(EL)	104,000				(26,000)
Common stock—Adam	(100,000)							(100
Paid-in capital in excess of par—Adam	(250,000)							(250
Retained earnings—Adam	(633,000)							(633
Noncontrolling interest							(50,000)	(50,
Totals	0	0		479,000		479,000		0

Eliminations and Adjustments:

(EL) Eliminate investment in subsidiary against 80% of the subsidiary equity accounts.
(D) Distribute $275,000 excess of cost over book value to:
(D1) Inventory, $16,000.
(D2) Premium on bonds payable, ($4,000).
(D3) Land, $8,000.
(D4) Buildings and equipment, $36,000.
(D5) Copyrights, $12,000.
(D6) Goodwill, $207,000.

PROBLEM 2-7

(1)

100% Purchase with Goodwill

Common information:

Ownership interest	100%
Price paid (including direct acquisition costs)	$410,000

Sader Company's Balance Sheet before Purchase

	Book Value	Fair Value		Book Value	Fair Value
Priority assets:					
Accounts receivable	20,000	20,000	Current liabilities	40,000	40,000
Inventory	50,000	55,000	Bonds payable	100,000	100,000
Total priority assets	**70,000**	**75,000**	**Total liabilities**		**140,000**
140,000					
Nonpriority assets:					
Land	40,000	70,000			
Buildings	200,000	250,000	Stockholders' equity:		
Accumulated depreciation	(50,000)		Common stock, $1 par	10,000	
Equipment	60,000	60,000	Paid-in capital in		
Accumulated depreciation	(20,000)		excess of par	90,000	
Copyright		50,000	Retained earnings	60,000	
Total nonpriority assets	**230,000**	**430,000**	Total equity	160,000	
Existing goodwill					
Total assets	**300,000**	**505,000**	**Value of net assets**	**160,000**	**365,000**

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$ (65,000)	$ (65,000)	$ (65,000)
Nonpriority accounts	430,000	430,000	365,000

Price Analysis

Price	$410,000	
Assign to priority accounts	(65,000)	full value
Assign to nonpriority accounts	430,000	full value
Goodwill	45,000	

Problem 2-7, Continued

Determination and Distribution of Excess Schedule

Price paid for investment		$410,000		
Less book value interest acquired:				
Common stock, $1 par	$ 10,000			
Paid-in capital in excess of par	90,000			
Retained earnings	60,000			
Total equity	$160,000			
Interest acquired	× 100%	160,000		
Excess of cost over book value (debit)		$250,000		
Existing goodwill		—		
Excess available		$250,000		
Adjustments:				
Inventory	$ 5,000		debit D1	
Bonds payable	—			
Land	30,000		debit D2	
Buildings	100,000			debit D3
Equipment	20,000			debit D4
Copyright	50,000			debit D5
Goodwill	45,000			debit D6
Extraordinary gain	—			
Total	$250,000			

Problem 2-7, Concluded

(2)

Pantera Company and Subsidiary Sader Company
Worksheet for Consolidated Balance Sheet
January 1, 20X1
Year of Consolidation

	Balance Sheet		Eliminations					Consol. Balance Sheet
	Pantera	Sader	Debit		Credit		NCI	
Cash	51,000							51,0
Accounts receivable	65,000		20,000					
Inventory	80,000		50,000	(D1)	5,000			
Land	100,000		40,000	(D2)	30,000			
Investment in Sader	410,000				(EL)		160,000	
				(D)		250,000		
Buildings	250,000		200,000	(D3)	100,000			
Accumulated depreciation	(80,000)		(50,000)					
Equipment	90,000		60,000	(D4)	20,000			
Accumulated depreciation	(40,000)		(20,000)					
Copyright			(D5)	50,000				50,0
Goodwill			(D6)	45,000				45,0
Current liabilities	(80,000)		(40,000)					
Bonds payable	(200,000)		(100,000)					
Common stock, $1 par—Sader		(10,000)	(EL)	10,000				
Paid-in capital in excess of par—Sader		(90,000)	(EL)	90,000				
Retained earnings—Sader		(60,000)	(EL)	60,000				
Common stock—Pantera	(20,000)							(20,
Paid-in capital in excess of par—Pantera	(180,000)							(180
Retained earnings—Pantera	(446,000)							(446
Totals	0	0	410,000		410,000			
Noncontrolling interest							0	
Controlling retained earnings								
Totals								0

Eliminations and Adjustments:

(EL) Eliminate the investment in the subsidiary against the subsidiary equity accounts.
(D) Distribute $250,000 excess of cost over book value as follows:
(D1) Inventory, $5,000.
(D2) Land, $30,000.
(D3) Buildings, $100,000.
(D4) Equipment, $20,000.
(D5) Copyright, $50,000.
(D6) Goodwill, $45,000.

PROBLEM 2-8

(1)

100% Bargain Purchase

Common information:

Ownership interest	100%
Price paid (including direct acquisition costs)	$250,000

Acquired Company's Balance Sheet before Purchase

	Book Value	Fair Value		Book Value	Fair Value
Priority assets:					
Accounts receivable	20,000	20,000	Current liabilities	40,000	40,000
Inventory	50,000	55,000	Bonds payable	100,000	100,000
Total priority assets	**70,000**	**75,000**	**Total liabilities**		**140,000**
140,000					
Nonpriority assets:					
Land	40,000	70,000			
Buildings	200,000	250,000	Stockholders' equity:		
Accumulated depreciation	(50,000)		Common stock, $1 par	10,000	
Equipment	60,000	60,000	Paid-in capital in		
Accumulated depreciation	(20,000)		excess of par	90,000	
Copyright		50,000	Retained earnings	60,000	
Total nonpriority assets	**230,000**	**430,000**	Total equity	160,000	
Existing goodwill					
Total assets	**300,000**	**505,000**	**Value of net assets**	**160,000**	**365,000**

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$ (65,000)	$ (65,000)	$ (65,000)
Nonpriority accounts	430,000	430,000	365,000

Price Analysis

Price	$250,000	
Assign to priority accounts	(65,000)	full value
Assign to nonpriority accounts	315,000	allocate
Goodwill	—	
Extraordinary gain	—	

Problem 2-8, Continued

Determination and Distribution of Excess Schedule

Price paid for investment		$250,000	
Less book value interest acquired:			
Common stock, $1 par	$ 10,000		
Paid-in capital in excess of par	90,000		
Retained earnings	60,000		
Total equity	$ 160,000		
Interest acquired	× 100%	160,000	
Excess of cost over book value (debit)		$ 90,000	
Existing goodwill		—	
Excess available		$ 90,000	
Adjustments:			
Inventory	$ 5,000	debit D1	
Land	11,279	debit D2	
Bonds payable	—		
Buildings	33,140		debit D3
Equipment	3,953		debit D4
Copyright	36,628		debit D5
Goodwill	—		
Extraordinary gain	—		
Total	$ 90,000		

Allocation Tables

	Market	Percent*	Available	Assign	Book	Adjust
Land	70,000	0.16	315,000	51,279	40,000	11,279
Buildings (net)	250,000	0.58	315,000	183,140	150,000	33,140
Equipment (net)	60,000	0.14	315,000	43,953	40,000	3,953
Copyright	50,000	0.12	315,000	36,628		—
36,628						
Total to other fixed assets	430,000	1.00		315,000	230,000	85,000

*Rounded

Problem 2-8, Concluded

(2)

Pantera Company and Subsidiary Sader Company
Worksheet for Consolidated Balance Sheet
January 1, 20X1
Year of Consolidation

	Balance Sheet		Eliminations					Consol. Balance Sheet
	Pantera	Sader	Debit		Credit		NCI	
Cash	211,000							211,
Accounts receivable	65,000		20,000					
Inventory	80,000		50,000	(D1)	5,000			
Land	100,000		40,000	(D2)	11,279			
Investment in Sader	250,000				(EL)		160,000	
				(D)			90,000	
Buildings	250,000		200,000	(D3)	33,140			
Accumulated depreciation	(80,000)		(50,000)					
Equipment	90,000		60,000	(D4)	3,953			
Accumulated depreciation	(40,000)		(20,000)					
Copyright			(D5)	36,628				36,6
Goodwill								
Current liabilities	(80,000)		(40,000)					
Bonds payable	(200,000)		(100,000)					
Common stock, $1 par—Sader		(10,000)	(EL)	10,000				
Paid-in capital in excess of par—Sader		(90,000)	(EL)	90,000				
Retained earnings—Sader		(60,000)	(EL)	60,000				
Common stock—Pantera	(20,000)							(20,
Paid-in capital in excess of par—Pantera	(180,000)							(180
Retained earnings—Pantera	(446,000)							(446
Totals	0	0	250,000		250,000			
Noncontrolling interest							0	
Controlling retained earnings								
Totals								0

Eliminations and Adjustments:

(EL) Eliminate the investment in the subsidiary against the subsidiary equity accounts.
(D) Distribute $90,000 excess of cost over book value as follows:
(D1) Inventory, $5,000.
(D2) Land, $11,279.
(D3) Buildings, $33,140.
(D4) Equipment, $3,953.
(D5) Copyright, $36,628.

PROBLEM 2-9

(1)

80% Purchase with Goodwill

Common information:

Ownership interest	80%
Price paid (including direct acquisition costs)	$360,000

Sader Company's Balance Sheet before Purchase

	Book Value	Fair Value		Book Value	Fair Value
Priority assets:					
Accounts receivable	20,000	20,000	Current liabilities	40,000	40,000
Inventory	50,000	55,000	Bonds payable	100,000	100,000
Total priority assets	**70,000**	**75,000**	**Total liabilities**		**140,000**
140,000					
Nonpriority assets:					
Land	40,000	70,000			
Buildings	200,000	250,000	Stockholders' equity:		
Accumulated depreciation	(50,000)		Common stock, $1 par	10,000	
Equipment	60,000	60,000	Paid-in capital in		
Accumulated depreciation	(20,000)		excess of par	90,000	
Copyright		50,000	Retained earnings	60,000	
Total nonpriority assets	**230,000**	**430,000**	Total equity	160,000	
Existing goodwill					
Total assets	**300,000**	**505,000**	**Value of net assets**	**160,000**	**365,000**

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$ (65,000)	$ (52,000)	$ (52,000)
Nonpriority accounts	430,000	344,000	292,000

Price Analysis

Price	$360,000	
Assign to priority accounts	(52,000)	full value
Assign to nonpriority accounts	344,000	full value
Goodwill	68,000	

Problem 2-9, Continued

Determination and Distribution of Excess Schedule

Price paid for investment		$360,000	
Less book value interest acquired:			
Common stock, $1 par	$ 10,000		
Paid-in capital in excess of par	90,000		
Retained earnings	60,000		
Total equity	$160,000		
Interest acquired	× 80%	128,000	
Excess of cost over book value (debit)		$232,000	
Existing goodwill		—	
Excess available		$232,000	
Adjustments:			
Inventory	$ 4,000		debit D1
Land	24,000		debit D2
Bonds payable	—		
Buildings	80,000		debit D3
Equipment	16,000		debit D4
Copyright	40,000		debit D5
Goodwill	68,000		debit D6
Extraordinary gain	—		
Total	$232,000		

Problem 2-9, Concluded

(2)

Pantera Company and Subsidiary Sader Company
Worksheet for Consolidated Balance Sheet
January 1, 20X1
Year of Consolidation

	Balance Sheet		Eliminations						Consol. Balance Sheet
	Pantera	Sader	Debit		Credit		NCI		
Cash	101,000								101,
Accounts receivable	65,000		20,000						
Inventory	80,000		50,000	(D1)	4,000				
Land	100,000		40,000	(D2)	24,000				
Investment in Sader	360,000				(EL)		128,000		
				(D)	232,000				
Buildings	250,000		200,000	(D3)	80,000				
Accumulated depreciation	(80,000)		(50,000)						
Equipment	90,000		60,000	(D4)	16,000				
Accumulated depreciation	(40,000)		(20,000)						
Copyright			(D5)	40,000					40,0
Goodwill			(D6)	68,000					68,0
Current liabilities	(80,000)		(40,000)						
Bonds payable	(200,000)		(100,000)						
Common stock, $1 par—Sader		(10,000)	(EL)	8,000				(2,000)	
Paid-in capital in excess of par—Sader		(90,000)	(EL)	72,000				(18,000)	
Retained earnings—Sader		(60,000)	(EL)	48,000				(12,000)	
Common stock—Pantera	(20,000)								(20,
Paid-in capital in excess of par—Pantera	(180,000)								(180
Retained earnings—Pantera	(446,000)								(446
Totals	0	0	360,000		360,000				
NCI							(32,000)		(32,
Controlling retained earnings									
Totals								0	

Eliminations and Adjustments:

(EL) Eliminate 80% subsidiary equity against investment account.
(D) Distribute $232,000 excess of cost over book value as follows:
(D1) Inventory, $4,000.
(D2) Land, $24,000.
(D3) Buildings, $80,000.
(D4) Equipment, $16,000.
(D5) Copyright, $40,000.
(D6) Goodwill, $68,000.

PROBLEM 2-10

(1)

80% Bargain Purchase

Common information:

Ownership interest	80%
Price paid (including direct acquisition costs)	$200,000

Sader Company's Balance Sheet before Purchase

	Book Value	Fair Value		Book Value	Fair Value
Priority assets:					
Accounts receivable	20,000	20,000	Current liabilities	40,000	40,000
Inventory	50,000	55,000	Bonds payable	100,000	100,000
Total priority assets	**70,000**	**75,000**	**Total liabilities**		**140,000**
140,000					
Nonpriority assets:					
Land	40,000	70,000			
Buildings	200,000	250,000	Stockholders' equity:		
Accumulated depreciation	(50,000)		Common stock, $1 par	10,000	
Equipment	60,000	60,000	Paid-in capital in		
Accumulated depreciation	(20,000)		excess of par	90,000	
Copyright		50,000	Retained earnings	60,000	
Total nonpriority assets	**230,000**	**430,000**	Total equity	160,000	
Existing goodwill					
Total assets	**300,000**	**505,000**	**Value of net assets**	**160,000**	**365,000**

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$ (65,000)	$ (52,000)	$ (52,000)
Nonpriority accounts	430,000	344,000	292,000

Price Analysis

Price	$200,000	
Assign to priority accounts	(52,000)	full value
Assign to nonpriority accounts	252,000	allocate
Goodwill	—	
Extraordinary gain	—	

Problem 2-10, Continued

Determination and Distribution of Excess Schedule

Price paid for investment		$200,000	
Less book value interest acquired:			
Common stock, $1 par	$ 10,000		
Paid-in capital in excess of par	90,000		
Retained earnings	60,000		
Total equity	$160,000		
Interest acquired	× 80%	128,000	
Excess of cost over book value (debit)		$ 72,000	
Existing goodwill		—	
Excess available		$ 72,000	
Adjustments:			
Inventory	$ 4,000		debit D1
Land	9,023		debit D2
Bonds payable	—		
Buildings	26,512		debit D3
Equipment	3,163		debit D4
Copyright	29,302		debit D5
Goodwill	—		
Extraordinary gain	—		
Total	$ 72,000		

Allocation Tables

	Market	Percent*	Available	Assign	Book	Adjust
Land	70,000	0.16	252,000	41,023	32,000	9,023
Buildings (net)	250,000	0.58	252,000	146,512	120,000	26,512
Equipment (net)	60,000	0.14	252,000	35,163	32,000	3,163
Copyright	50,000	0.12	252,000	29,302		—
29,302						
Total to other fixed assets	430,000	1.00		252,000	184,000	68,000

*Rounded

Problem 2-10, Concluded

(2)

Pantera Company and Subsidiary Sader Company
Worksheet for Consolidated Balance Sheet
January 1, 20X1
Year of Consolidation

	Balance Sheet		Eliminations						Consol. Balance Sheet
	Pantera	Sader	Debit		Credit		NCI		
Cash	261,000								261,
Accounts receivable	65,000		20,000						
Inventory	80,000		50,000	(D1)	4,000				
Land	100,000		40,000	(D2)	9,023				
Investment in Sader	200,000				(EL)		128,000		
				(D)		72,000			
Buildings	250,000		200,000	(D3)	26,512				
Accumulated depreciation	(80,000)		(50,000)						
Equipment	90,000		60,000	(D4)	3,163				
Accumulated depreciation	(40,000)		(20,000)						
Copyright			(D5)	29,302					29,3
Goodwill									
Current liabilities	(80,000)		(40,000)						
Bonds payable	(200,000)		(100,000)						
Common stock, $1 par—Sader		(10,000)	(EL)	8,000				(2,000)	
Paid-in capital in excess of par—Sader		(90,000)	(EL)	72,000				(18,000)	
Retained earnings—Sader		(60,000)	(EL)	48,000				(12,000)	
Common stock—Pantera	(20,000)								(20,
Paid-in capital in excess of par—Pantera	(180,000)								(180
Retained earnings—Pantera	(446,000)								(446
Totals	0	0	200,000		200,000				
NCI							(32,000)		(32,
Controlling retained earnings									
Totals								0	

Eliminations and Adjustments:

(EL) Eliminate 80% subsidiary equity against investment account.
(D) Distribute $72,000 excess of cost over book value as follows:
(D1) Inventory,$4,000.
(D2) Land, $9,023.
(D3) Buildings, $26,512.
(D4) Equipment, $3,163.
(D5) Copyright, $29,302.

PROBLEM 2-11

(1)

100% Purchase with Goodwill

Common information:

Ownership interest	100%
Price paid (including direct acquisition costs)	$1,200,000

Soma Corporation's Balance Sheet before Purchase

	Book Value	Fair Value		Book Value	Fair Value
Priority assets:					
Accounts receivable	50,000	50,000	Current liabilities	90,000	90,000
Inventory	120,000	150,000	Bonds payable		200,000
210,000					
Total priority assets	**170,000**	**200,000**	**Total liabilities**		
290,000		**300,000**			
Nonpriority assets:					
Land	100,000	200,000			
Buildings	300,000	400,000			
Accumulated depreciation	(100,000)				
Equipment	140,000	200,000	Stockholders' equity:		
Accumulated depreciation	(50,000)		Common stock, $1 par	10,000	
Patent (net)	10,000	150,000	Paid-in capital in		
Computer software		50,000	excess of par		190,000
Total nonpriority assets	**400,000**	**1,000,000**	Retained earnings		140,000
			Total equity	340,000	
Existing goodwill	60,000				
Total assets	**630,000**	**1,200,000**	**Value of net assets**		**340,000**
900,000					

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$ (100,000)	$ (100,000)	$(100,000)
Nonpriority accounts	1,000,000	1,000,000	900,000

Price Analysis

Price	$1,200,000	
Assign to priority accounts	(100,000)	full value
Assign to nonpriority accounts	1,000,000	full value
Goodwill	300,000	

Problem 2-11, Continued

Determination and Distribution of Excess Schedule

Price paid for investment		$1,200,000		
Less book value interest acquired:				
Common stock, $1 par	$ 10,000			
Paid-in capital in excess of par	190,000			
Retained earnings	140,000			
Total equity	$340,000			
Interest acquired	× 100%	340,000		
Excess of cost over book value (debit)		$ 860,000		
Adjustments:				
Inventory	$ 30,000		debit D1	
Bonds payable	(10,000)			credit D2
Land	100,000		debit D3	
Buildings	200,000			debit D4
Equipment	110,000			debit D5
Patent (net)	140,000			debit D6
Computer software	50,000			debit D7
Goodwill	240,000			debit D8
Extraordinary gain	—			
Total adjustments	$860,000			

Problem 2-11, Concluded

(2)

Year of Consolidation

	Balance Sheet		Eliminations					Consol. Balance Sheet
	Purnell	Soma		Debit		Credit	NCI	
Cash	170,000							170,
Accounts receivable	300,000			50,000				
Inventory	410,000			120,000	(D1)	30,000		
Land	800,000			100,000	(D3)	100,000		
Investment in Soma		1,200,000				(EL)	340,000	
					(D)		860,000	
Buildings		2,800,000		300,000	(D4)	200,000		
Accumulated depreciation	(500,000)			(100,000)				
Equipment	600,000			140,000	(D5)	110,000		
Accumulated depreciation	(230,000)			(50,000)				
Patent (net)			10,000		(D6)	140,000		
Computer software				(D7)		50,000		50,0
Goodwill			60,000		(D8)	240,000		
Current liabilities	(150,000)			(90,000)				
Bonds payable	(300,000)			(200,000)				
Discount (premium)					(D2)		10,000	(10,
Common stock, $1 par—Soma			(10,000)		(EL)	10,000		
Paid-in capital in excess of par—Soma			(190,000)		(EL)	190,000		
Retained earnings—Soma			(140,000)		(EL)	140,000		
Common stock—Purnell	(100,000)							(100
Paid-in capital in excess of par—Purnell		(3,900,000)						(3,9
Retained earnings—Purnell		(1,100,000)						(1,1
Totals	0	0				1,210,000	1,210,000	
NCI							0	
Controlling retained earnings								
Totals								0

Eliminations and Adjustments:

- (EL) Eliminate subsidiary equity.
- (D) Distribute excess to:
- (D1) Inventory.
- (D2) Premium on bonds payable.
- (D3) Land.
- (D4) Buildings.
- (D5) Equipment.
- (D6) Patent.
- (D7) Computer software.
- (D8) Goodwill.

PROBLEM 2-12

(1)

100% Bargain Purchase

Common information:

Ownership interest	100%
Price paid (including direct acquisition costs)	$800,000

Soma Corporation's Balance Sheet before Purchase

	Book Value	Fair Value		Book Value	Fair Value
Priority assets:					
Accounts receivable	50,000	50,000	Current liabilities	90,000	90,000
Inventory	120,000	150,000	Bonds payable		200,000
210,000					
Total priority assets	**170,000**	**200,000**	**Total liabilities**		
290,000		**300,000**			
Nonpriority assets:					
Land	100,000	200,000			
Buildings	300,000	400,000			
Accumulated depreciation	(100,000)				
Equipment	140,000	200,000	Stockholders' equity:		
Accumulated depreciation	(50,000)		Common stock, $1 par	10,000	
Patent (net)	10,000	150,000	Paid-in capital in		
Computer software		50,000	excess of par		190,000
Total nonpriority assets	**400,000**	**1,000,000**	Retained earnings		140,000
			Total equity	340,000	
Existing goodwill	60,000				
Total assets	**630,000**	**1,200,000**	**Value of net assets**		**340,000**
900,000					

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$ (100,000)	$ (100,000)	$(100,000)
Nonpriority accounts	1,000,000	1,000,000	900,000

Price Analysis

Price	$ 800,000	
Assign to priority accounts	(100,000)	full value
Assign to nonpriority accounts	900,000	allocate
Goodwill	—	
Extraordinary gain	—	

Problem 2-12, Continued

Determination and Distribution of Excess Schedule

Price paid for investment		$800,000		
Less book value interest acquired:				
Common stock, $1 par	$ 10,000			
Paid-in capital in excess of par	190,000			
Retained earnings	140,000			
Total equity	$340,000			
Interest acquired	× 100%	340,000		
Excess of cost over book value (debit)		$460,000		
Adjustments:				
Inventory	$ 30,000		debit D1	
Land	80,000		debit D2	
Bonds payable	(10,000)			credit D3
Buildings	160,000			debit D4
Equipment	90,000			debit D5
Patent (net)	125,000			debit D6
Computer software	45,000			debit D7
Goodwill	(60,000)			credit D8
Extraordinary gain	—			
Total adjustments	$460,000			

Allocation Tables

	Market	Percent	Available	Assign	Book	Adjust
Land	200,000	0.20	900,000	180,000	100,000	80,000
Buildings (net)	400,000	0.40	900,000	360,000	200,000	160,000
Equipment (net)	200,000	0.20	900,000	180,000	90,000	90,000
Patent (net)	150,000	0.15	900,000	135,000	10,000	125,000
Computer software	50,000	0.05	900,000	45,000	—	45,000
Total to other fixed assets	1,000,000		1.00		900,000	400,000
						500,000

Problem 2-12, Concluded

(2)

Year of Consolidation

	Balance Sheet		Eliminations					Consol. Balance Sheet
	Purnell	Soma	Debit		Credit		NCI	
Cash	170,000							170,
Accounts receivable	300,000		50,000					
Inventory	410,000		120,000	(D1)	30,000			
Land	800,000		100,000	(D2)	80,000			
Investment in Soma	800,000				(EL)		340,000	
				(D)			460,000	
Buildings	2,800,000		300,000	(D4)	160,000			
Accumulated depreciation	(500,000)		(100,000)					
Equipment	600,000		140,000	(D5)	90,000			
Accumulated depreciation	(230,000)		(50,000)					
Patent (net)		10,000	(D6)		125,000			
Computer software			(D7)	45,000				45,0
Goodwill		60,000			(D8)		60,000	
Current liabilities	(150,000)		(90,000)					
Bonds payable	(300,000)		(200,000)					
Discount (premium)				(D3)			10,000	(10,
Common stock, $1 par—Soma		(10,000)	(EL)		10,000			
Paid-in capital in excess of par—Soma		(190,000)	(EL)		190,000			
Retained earnings—Soma		(140,000)	(EL)		140,000			
Common stock—Purnell	(92,000)							(92,
Paid-in capital in excess of par—Purnell	(3,508,000)							(3,5
Retained earnings—Purnell	(1,100,000)							(1,1
Totals	0	0	870,000		870,000			
NCI							0	
Controlling retained earnings								
Totals								0

Eliminations and Adjustments:

(EL) Eliminate subsidiary equity.
(D) Distribute excess to:
(D1) Inventory.
(D2) Land.
(D3) Premium on bonds payable.
(D4) Buildings.
(D5) Equipment.
(D6) Patent.
(D7) Computer software.
(D8) Goodwill.

PROBLEM 2-13

(1)

80% Purchase with Goodwill

Common information:

Ownership interest	80%
Price paid (including direct acquisition costs)	$950,000

Acquired Company's Balance Sheet before Purchase

	Book Value	Fair Value		Book Value	Fair Value
Priority assets:					
Accounts receivable	50,000	50,000	Current liabilities	90,000	90,000
Inventory	120,000	150,000	Bonds payable		200,000
210,000					
Total priority assets	**170,000**	**200,000**	**Total liabilities**		
290,000		**300,000**			
Nonpriority assets:					
Land	100,000	200,000			
Buildings	300,000	400,000			
Accumulated depreciation	(100,000)				
Equipment	140,000	200,000	Stockholders' equity:		
Accumulated depreciation	(50,000)		Common stock, $1 par	10,000	
Patent (net)	10,000	150,000	Paid-in capital in		
Computer software		50,000	excess of par		190,000
Total nonpriority assets	**400,000**	**1,000,000**	Retained earnings		140,000
			Total equity	340,000	
Existing goodwill	60,000				
Total assets	**630,000**	**1,200,000**	**Value of net assets**		**340,000**
900,000					

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$ (100,000)	$ (80,000)	$ (80,000)
Nonpriority accounts	1,000,000	800,000	720,000

Price Analysis

Price	$950,000	
Assign to priority accounts	(80,000)	full value
Assign to nonpriority accounts	800,000	full value
Goodwill	230,000	

Problem 2-13, Continued

Determination and Distribution of Excess Schedule

Price paid for investment		$950,000		
Less book value interest acquired:				
Common stock, $1 par	$ 10,000			
Paid-in capital in excess of par	190,000			
Retained earnings	140,000			
Total equity	$340,000			
Interest acquired	× 80%	272,000		
Excess of cost over book value (debit)		$678,000		
Adjustments:				
Inventory	$ 24,000		debit D1	
Land	80,000		debit D2	
Bonds payable	(8,000)			credit D3
Buildings	160,000			debit D4
Equipment	88,000			debit D5
Patent (net)	112,000			debit D6
Computer software	40,000			debit D7
Goodwill	182,000			debit D8
Extraordinary gain	—			
Total adjustments	$678,000			

Problem 2-13, Concluded

(2)

Year of Consolidation

	Balance Sheet		Eliminations					Consol. Balance Sheet
	Purnell	Soma		Debit		Credit	NCI	
Cash	170,000							170,
Accounts receivable	300,000			50,000				
Inventory	410,000			120,000	(D1)	24,000		
Land	800,000			100,000	(D2)	80,000		
Investment in Soma	950,000					(EL)	272,000	
					(D)	678,000		
Buildings	2,800,000			300,000	(D4)	160,000		
Accumulated depreciation	(500,000)			(100,000)				
Equipment	600,000			140,000	(D5)	88,000		
Accumulated depreciation	(230,000)			(50,000)				
Patent (net)		10,000		(D6)		112,000		
Computer software				(D7)		40,000		40,0
Goodwill		60,000		(D8)		182,000		
Current liabilities	(150,000)			(90,000)				
Bonds payable	(300,000)			(200,000)				
Discount (premium)					(D3)	8,000		(8,0
Common stock, $1 par—Soma		(10,000)		(EL)		8,000		(2,000)
Paid-in capital in excess of par—Soma		(190,000)		(EL)		152,000		(38,000)
Retained earnings—Soma		(140,000)		(EL)		112,000		(28,000)
Common stock—Purnell	(95,000)							(95,
Paid-in capital in excess of par—Purnell	(3,655,000)							(3,6
Retained earnings—Purnell	(1,100,000)							(1,1
Totals	0	0		958,000		958,000		
NCI							(68,000)	(68,
Controlling retained earnings								
Totals								0

Eliminations and Adjustments:

- (EL) Eliminate subsidiary equity.
- (D) Distribute excess to:
- (D1) Inventory.
- (D2) Land.
- (D3) Premium on bonds payable.
- (D4) Buildings.
- (D5) Equipment.
- (D6) Patent.
- (D7) Computer software.
- (D8) Goodwill.

PROBLEM 2-14

(1)

80% Bargain Purchase

Common information:

Ownership interest	80%
Price paid (including direct acquisition costs)	$500,000

Acquired Company's Balance Sheet before Purchase

	Book Value	Fair Value		Book Value	Fair Value
Priority assets:					
Accounts receivable	50,000	50,000	Current liabilities	90,000	90,000
Inventory	120,000	150,000	Bonds payable		200,000
210,000					
Total priority assets	**170,000**	**200,000**	**Total liabilities**		
290,000		**300,000**			
Nonpriority assets:					
Land	100,000	200,000			
Buildings	300,000	400,000			
Accumulated depreciation	(100,000)				
Equipment	140,000	200,000	Stockholders' equity:		
Accumulated depreciation	(50,000)		Common stock, $1 par	10,000	
Patent (net)	10,000	150,000	Paid-in capital in		
Computer software		50,000	excess of par		190,000
Total nonpriority assets	**400,000**	**1,000,000**	Retained earnings		140,000
			Total equity	340,000	
Existing goodwill	60,000				
Total assets	**630,000**	**1,200,000**	**Value of net assets**		**340,000**
900,000					

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$ (100,000)	$ (80,000)	$ (80,000)
Nonpriority accounts	1,000,000	800,000	720,000

Price Analysis

Price	$500,000	
Assign to priority accounts	(80,000)	full value
Assign to nonpriority accounts	580,000	allocate
Goodwill	—	
Extraordinary gain	—	

Problem 2-14, Continued

Determination and Distribution of Excess Schedule

Price paid for investment		$500,000	
Less book value interest acquired:			
Common stock, $1 par	$ 10,000		
Paid-in capital in excess of par	190,000		
Retained earnings	140,000		
Total equity	$340,000		
Interest acquired	× 80%	272,000	
Excess of cost over book value (debit)		$228,000	
Adjustments:			
Inventory	$ 24,000	debit D1	
Land	36,000	debit D2	
Bonds payable	(8,000)		credit D3
Buildings	72,000		debit D4
Equipment	44,000		debit D5
Patent (net)	79,000		debit D6
Computer software	29,000		debit D7
Goodwill	(48,000)		credit D8
Extraordinary gain	—		
Total adjustments	$228,000		

Allocation Tables

	Market	Percent	Available	Assign	Book	Adjust
Land	200,000	0.20	580,000	116,000	80,000	36,000
Buildings (net)	400,000	0.40	580,000	232,000	160,000	72,000
Equipment (net)	200,000	0.20	580,000	116,000	72,000	44,000
Patent (net)	150,000	0.15	580,000	87,000	8,000	79,000
Computer software	50,000	0.05	580,000	29,000	—	29,000
Total to other fixed assets	1,000,000		1.00		580,000	320,000
260,000						

Problem 2-14, Concluded

(2)

Year of Consolidation

	Balance Sheet		Eliminations					Consol. Balance Sheet
	Purnell	Soma		Debit		Credit	NCI	
Cash	170,000							170,
Accounts receivable	300,000			50,000				
Inventory	410,000			120,000	(D1)	24,000		
Land	800,000			100,000	(D2)	36,000		
Investment in Soma	500,000					(EL)	272,000	
					(D)	228,000		
Buildings	2,800,000			300,000	(D4)	72,000		
Accumulated depreciation	(500,000)			(100,000)				
Equipment	600,000			140,000	(D5)	44,000		
Accumulated depreciation	(230,000)			(50,000)				
Patent (net)		10,000	(D6)			79,000		
Computer software			(D7)	29,000				29,0
Goodwill		60,000				(D8)	48,000	12,0
Current liabilities	(150,000)			(90,000)				
Bonds payable	(300,000)			(200,000)				
Discount (premium)					(D3)	8,000		(8,0
Common stock, $1 par—Soma		(10,000)	(EL)		8,000			(2,000)
Paid-in capital in excess of par—Soma		(190,000)	(EL)		152,000			(38,000)
Retained earnings—Soma		(140,000)	(EL)		112,000			(28,000)
Common stock—Purnell	(86,000)							(86,
Paid-in capital in excess of par—Purnell	(3,214,000)							(3,2
Retained earnings—Purnell	(1,100,000)							(1,1
Totals	0	0		556,000		556,000		
NCI							(68,000)	(68,
Controlling retained earnings								
Totals								0

Eliminations and Adjustments:

- (EL) Eliminate subsidiary equity.
- (D) Distribute excess to:
- (D1) Inventory.
- (D2) Land.
- (D3) Premium on bonds payable.
- (D4) Buildings.
- (D5) Equipment.
- (D6) Patent.
- (D7) Computer software.
- (D8) Goodwill.

CASE

CASE 2-1

(1) Evaluation of price—Fair value of Al's Hardware:

Cash	$	180,000	
Accounts receivable (net of allowance)		350,000	
Inventory		600,000	
Land		100,000	
Building		300,000	
Equipment		100,000	
Current liabilities		(425,000)	
Mortgage		(600,000)	
Lawsuit		(300,000)	
	$	305,000	× 60%

= $183,000

Value given	7,500	× $40

= $300,000

This purchase would not be a bargain, because comparing the fair values (including the lawsuit) to the price would result in Goodwill of $117,000 ($300,000 – $183,000).

Note: This analysis could also be done for only 60% interest in the form of the D&D schedule with the same result.

(2) Accounting methods:

(a) GAAP would require that many of the adjustments to recognize fair values be made directly on Al's books before consolidation:

Increase Allowance for Doubtful Accounts.
Decrease inventory to fair value.
Record estimated liability from lawsuit.

(b) There are no major differences between fair and book values of the long-lived assets. Normally, they would not be adjusted to fair value, but this could be done under quasi-reorganization or push-down accounting. The recommendation would be that they be adjusted to fair value to improve future reporting. Noncontrolling interest would have to agree to it as well.

(c) Goodwill should be written off because there is no reason to think it exists.

(d) Al's Hardware is a likely candidate for quasi-reorganization, because this procedure adjusts all assets to fair values and decreases Paid-In Capital to provide the amount needed to cover the negative balance in Retained Earnings.

Summary: Accounts Receivable, Inventory, Estimated Liability, and Goodwill should be adjusted on the subsidiary's books. The adjustments of long-lived assets could be done on the subsidiary's books under push-down accounting. If the long-lived assets are not adjusted on the subsidiary books, the adjustment relative to the controlling interest would be made in the consolidation process.

Chapter 3

UNDERSTANDING THE ISSUES

1. (a) Subsidiary Income = $30,000.
Investment in Subsidiary ($400,000 + $30,000 – $5,000) = $425,000.

(b) Subsidiary Income ($30,000 – $5,000) = $25,000.
Investment in Subsidiary ($400,000 + $25,000 – $5,000) = $420,000.

(c) Subsidiary Income = $0.
Dividend Income = $5,000.
Investment in Subsidiary = $400,000.

2. Date alignment means adjusting the investment account to reflect the same date as the subsidiary equity accounts so that their balances reflect the same point in time.

(a) Simple equity method—The subsidiary's equity accounts reflect beginning of the year balances, yet the investment account reflects an end of the year balance. During the consolidation process, the subsidiary income and the parent's share of the subsidiary's declared dividends are closed to the investment account to return it to its beginning of the year balance.

(b) Sophisticated equity method—The subsidiary's equity accounts reflect beginning of the year balances, yet the investment account reflects an end of the year balance. During the consolidation process, the subsidiary income and the parent's share of the subsidiary's declared dividends are closed to the investment account to return it to its beginning of the year balance.

(c) Cost method—The subsidiary's equity accounts reflect beginning of the year balances, yet the investment account reflects the balance on the date of acquisition. Therefore, the investment account is converted to its simple equity balance at the beginning of the period to create date alignment.

3. The noncontrolling share of consolidated net income is the outside ownership share of the subsidiary's internally generated income. This amount does not reflect adjustments based on fair values at the purchase date. In the past, it has been displayed as an expense. However, it should be displayed as a distribution of consolidated net income to the NCI.

4. (a)

Parent net income for 20X1	$140,000
Parent's share of subsidiary net income in 20X1 ($60,000 × ½ year × 80%)	24,000
Amortization of excess for 20X1 ($100,000 ÷ 10 × ½ year)	(5,000)
NCI share of subsidiary net income in 20X1 ($60,000 × 20%)	12,000
Consolidated net income.....	$171,000

(b) NCI share of net income = $60,000 × 20% = $12,000.

5. In 20X1, consolidated net income would be reduced by $16,000 as a result of the inventory and equipment. The inventory would increase cost of goods sold by $8,000 [($60,000 – $50,000) × 80%]. The equipment would increase depreciation expense by $8,000 [($150,000 – $100,000) × 80% ÷ 5 years]. In 20X2, consolidated net income would be reduced by $8,000 as a result of the equipment. The equipment would increase depreciation expense by $8,000 [($150,000 – $100,000) × 80% ÷ 5 years]. The inventory would reduce controlling retained earnings by $8,000 in future years.

6. The total noncontrolling interest will consist of 20% of the subsidiary's common stock, paid-in capital in excess of par, retained earnings, dividends declared, and internally generated income. The NCI is shown as a subdivision of equity as a total amount on the consolidated balance sheet.

7. Consolidated net income could exceed the sum of the separately calculated net incomes of the parent and subsidiary. This would occur if the fair value of the subsidiary's net assets were

less than their book value, resulting in a markdown of assets. The amortization of this markdown would decrease expense; therefore, consolidated net income is increased.

8. Push-down accounting simplifies the consolidated worksheet procedures since the subsidiary's accounts will already reflect the fair value adjustments. There is no need to make adjustments to fair value on the consolidated worksheet since fair value already exists. The investment account is eliminated against subsidiary equity with no excess. Also, there is no need to record any additional amortization, since the subsidiary has already done this.

EXERCISES

EXERCISE 3-1

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$ 0	$ 0	$ 0
Nonpriority accounts	325,000	260,000	260,000

Price Analysis

Price	$360,000	
Assign to priority accounts	0	full value
Assign to nonpriority accounts	260,000	full value
Goodwill	100,000	

Determination and Distribution of Excess Schedule

					Amortization
Price paid for investment		$360,000			
Less book value interest acquired:					
Common stock	$ 50,000				
Paid-in capital in excess of par	100,000				
Retained earnings	150,000				
Total equity	$300,000				
Interest acquired	× 80%	240,000			
Excess of cost over book value (debit)		$120,000			
Equipment		$ 20,000	5	debit	$4,000
Goodwill		100,000		debit	
Total adjustments		$120,000			

(a)

Event	Simple Equity Method		
20X1			
Subsidiary income of $60,000 reported to parent	Investment in Hill Company	48,000	
	Subsidiary Income		48,000
Dividends of $10,000 paid by Hill	Cash	8,000	
	Investment in Hill Company		8,000
20X2			
Subsidiary income of $40,000 reported to parent	Investment in Hill Company	32,000	
	Subsidiary Income		32,000
Dividends of $10,000 paid by Hill	Cash	8,000	
	Investment in Hill Company		8,000

Exercise 3-1, Concluded

(b)

Event	Sophisticated Equity Method		
20X1			
Subsidiary income of $60,000 reported to parent	Investment in Hill Company.....	44,000	
	Subsidiary Income.....		44,000
Dividends of $10,000 paid by Hill	Cash	8,000	
	Investment in Hill Company.....		8,000
20X2			
Subsidiary income of $40,000 reported to parent	Investment in Hill Company.....	28,000	
	Subsidiary Income.....		28,000
Dividends of $10,000 paid by Hill	Cash	8,000	
	Investment in Hill Company.....		8,000

(c)

Event	Cost Method		
20X1			
Subsidiary income of $60,000 reported to parent	No entry		
Dividends of $10,000 paid by Hill	Cash	8,000	
	Dividend Income		8,000
20X2			
Subsidiary income of $40,000 reported to parent	No entry		
Dividends of $10,000 paid by Hill	Cash	8,000	
	Dividend Income		8,000

EXERCISE 3-2

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$ 80,000	$ 60,000	$ 60,000
Nonpriority accounts	450,000	337,500	397,500

Price Analysis		
Price	$462,500	
Assign to priority accounts	60,000	full value
Assign to nonpriority accounts	337,500	full value
Goodwill.....	65,000	
Extraordinary gain.....	—	

Exercise 3-2, Concluded

Determination and Distribution of Excess Schedule

Price paid for investment		$462,500			
Less book value interest acquired:					
Common stock	$ 50,000				
Paid-in capital in excess of par	150,000				
Retained earnings	200,000				
Total equity	$400,000				
Interest acquired	× 75%	300,000			
Excess of cost over book value (debit)		$162,500			
					Amortization
Inventory		$ 7,500	1	debit	—
Buildings and equipment (net)		75,000	20	debit	$3,750
Patent		15,000	10	debit	1,500
Goodwill		65,000		debit	
Extraordinary gain		—			
Total adjustments		$162,500			

(a)	Simple equity	$462,500
	+ (75% Cost × Increase in Retained Earnings of $78,000*)	58,500
	Balance	$521,000
(b)	Sophisticated equity	$462,500
	+ (75% Cost × Increase in Retained Earnings of $78,000*)	58,500
	– 20X4 Amortization of Excess ($7,500 Inventory + $3,750 Building + $1,500 Patent)	(12,750)
	– 20X5 Amortization of Excess ($3,750 Building + $1,500 Patent)	(5,250)
	Balance	$503,000
	*Or 75% × ($70,000 – $20,000 + $48,000 – $20,000)	
(c)	Cost	$462,500

EXERCISE 3-3

(1)

Determination and Distribution of Excess Schedule

Price paid for investment.		$250,000		
Less book value of interest acquired:				
Common stock ($10 par)	$100,000			
Paid-in capital in excess of par	—			
Retained earnings	150,000			
Total equity	$250,000			
Interest acquired	× 80%	200,000		
Excess of cost over book value (debit)		$ 50,000		Amortization
Existing goodwill		—		
Excess available		$ 50,000		
Adjustments:				
Depreciable fixed assets		$ 50,000	10 debit	$5,000
Goodwill		—		
Extraordinary gain		—		
Total adjustments		$ 50,000		

(2)

CY1	Subsidiary Income	20,000	
	Investment in Salt Company		20,000
	To eliminate parent's share of subsidiary earnings for the current year.		
CY2	Investment in Salt Company	4,000	
	Dividends Declared		4,000
	To eliminate parent's share of dividends for the current year.		
EL	Common Stock—Salt	80,000	
	Retained Earnings—Salt	120,000	
	Investment in Salt Company		200,000
	To eliminate pro rata share of the beginning-of-the-year Salt equity balances.		
D	Depreciable Fixed Assets*	50,000	
	Investment in Salt Company		50,000
	To distribute excess per determination and distribution of excess schedule.		
	*Assuming no accumulated depreciation existed on the date of acquisition.		
A	Depreciation Expense	5,000	
	Accumulated Depreciation		5,000
	To amortize excess for the current year.		

Exercise 3-3, Continued

(3)

Pepper Company and Salt Company
Consolidated Income Statement
For Year Ended December 31, 20X1

Revenue	$250,000
Less expenses (add $5,000 adjustment)	190,000
Consolidated net income	$ 60,000
Distributed to noncontrolling interest	5,000
Distributed to controlling interest	$ 55,000

Subsidiary Salt Company Income Distribution

	Internally generated net income	$25,000
	Adjusted income	$25,000
	NCI share	× 20%
	NCI	$ 5,000

Parent Pepper Company Income Distribution

Depreciable fixed assets	$5,000	Internally generated net income	$40,000
		80% × Salt adjusted income of $25,000	20,000
		Controlling interest	$55,000

Exercise 3-3, Concluded

(4)

Pepper Company and Salt Company
Consolidated Balance Sheet
December 31, 20X1

Assets

Current assets		$190,000
Depreciable fixed assets	$650,000	
Less accumulated depreciation	131,000	519,000
Total assets		$709,000

Liabilities and Stockholders' Equity

Current liabilities		$100,000
Stockholders' equity:		
Noncontolling interest		54,000
Controlling interest:		
Common stock	$300,000	
Retained earnings	255,000	555,000
Total liabilities and stockholders' equity		$709,000

EXERCISE 3-4

(1)

CY1	Subsidiary Income	12,000	
	Investment in Salt Company		12,000
	To eliminate parent's share of subsidiary earnings for the current year.		
CY2	Investment in Salt Company	8,000	
	Dividends Declared		8,000
	To eliminate parent's share of dividends for the current year.		
EL	Common Stock—Salt	80,000	
	Retained Earnings—Salt	136,000	
	Investment in Salt Company		216,000
	To eliminate pro rata share of the beginning-of-the-year Salt equity balances.		
D	Depreciable Fixed Assets*	50,000	
	Investment in Salt Company		50,000
	To distribute excess to plant assets.		

*No accumulated depreciation existed on the date of acquisition.

Exercise 3-4, Concluded

A	Depreciation Expense	5,000	
	Retained Earnings—Pepper	5,000	
	Accumulated Depreciation		10,000
	To amortize excess for past and current year.		

(2)

Pepper Company and Salt Company
Consolidated Income Statement
For Year Ended December 31, 20X2

Revenue	$300,000
Less expenses (add $5,000 adjustment)	250,000
Consolidated net income	$ 50,000
Distributed to noncontrolling interest	3,000
Distributed to controlling interest	$ 47,000

Subsidiary Salt Company Income Distribution

Internally generated net income	$15,000
Adjusted income	$15,000
NCI share	× 20%
NCI	$ 3,000

Parent Pepper Company Income Distribution

Depreciable fixed assets	$5,000	Internally generated net income	$40,000
		80% × Salt adjusted income of $15,000	12,000
		Controlling interest	$47,000

EXERCISE 3-5

(1) Same as Exercise 3, Part 1.

(2)	CY1	Subsidiary Income	15,000	
		Investment in Salt Company		15,000
	CY2	Investment in Salt Company	4,000	
		Dividends Declared		4,000
	EL	Common Stock—Salt	80,000	
		Retained Earnings—Salt	120,000	
		Investment in Salt Company		200,000

Exercise 3-5, Concluded

D	Depreciable Fixed Assets*		50,000	
	Investment in Salt Company			50,000
	*No accumulated depreciation existed on the date of acquisition.			
A	Depreciation Expense		5,000	
	Accumulated Depreciation			5,000

(3) Same as Exercise 3, Part 3.

(4) Same as Exercise 3, Part 4.

EXERCISE 3-6

(1)	CY1	Subsidiary Income	7,000	
		Investment in Salt Company		7,000
	CY2	Investment in Salt Company	8,000	
		Dividends Declared		8,000
	EL	Common Stock—Salt	80,000	
		Retained Earnings—Salt	136,000	
		Investment in Salt Company		216,000
	D	Depreciable Fixed Assets*	50,000	
		Investment in Salt Company		45,000
		Accumulated Depreciation		5,000
		*No accumulated depreciation existed on the date of acquisition.		
	A	Depreciation Expense	5,000	
		Accumulated Depreciation		5,000

(2) Same as Exercise 4, Part 2.

EXERCISE 3-7

(1) Same as Exercise 3, Part 1.

(2)	CY2	Dividend Income	4,000	
		Dividends Declared		4,000
		To eliminate parent's share of subsidiary dividends for the current year.		

Exercise 3-7, Concluded

EL	Common Stock—Salt		80,000	
	Retained Earnings—Salt		120,000	
	Investment in Brewer Company			200,000
	To eliminate pro rata share of the beginning-of-the-year Salt equity balances.			
D	Depreciable Fixed Assets*		50,000	
	Investment in Salt Company			50,000
	To distribute excess per determination and distribution of excess schedule.			
	*No accumulated depreciation existed on the date of acquisition.			
A	Depreciation Expense		5,000	
	Accumulated Depreciation			5,000
	To amortize excess for the current year.			

(3) Same as Exercise 3, Part 3.

(4) Same as Exercise 3, Part 4.

EXERCISE 3-8

(1)	CV	Investment in Salt Company	16,000	
		Retained Earnings—Pepper		16,000
		Convert from cost to equity method by adding to investment account parent's share of subsidiary equity increase. [80% × ($170,000 – $150,000)]		
	CY2	Dividend Income	8,000	
		Dividends Declared		8,000
		To eliminate parent's share of subsidiary dividends for the current year.		
	EL	Common Stock—Salt	80,000	
		Retained Earnings—Salt	136,000	
		Investment in Salt Company		216,000
		To eliminate pro rata share of the beginning-of-the-year Salt equity balances.		
	D	Depreciable Fixed Assets*	50,000	
		Investment in Salt Company		50,000
		To distribute excess to plant assets.		
		*No accumulated depreciation existed on the date of acquisition.		

Exercise 3-8, Concluded

A	Depreciation Expense	5,000	
	Retained Earnings—Pepper	5,000	
	Accumulated Depreciation		10,000
	To amortize excess for past and current year.		

(2) Same as Exercise 4, Part 2.

EXERCISE 3-9

Amortization Schedule

Account Adjustments	Life	Annual Amount	20X1	20X2	20X3	20X4
Inventory	1	5,000		5,000		
Subject to amortization:						
Investments	5	4,000	4,000	4,000	4,000	4,000
Bonds Payable	5	2,000	2,000	2,000	2,000	2,000
Buildings (net)	20	10,000	10,000	10,000	10,000	10,000
Equipment (net)	5	27,600	27,600	27,600	27,600	27,600
Patent	10	1,800	1,800	1,800	1,800	1,800
Trademark	10	1,600	1,600	1,600	1,600	1,600
Total			52,000	47,000	47,000	47,000

EXERCISE 3-10

(1)

Determination and Distribution of Excess Schedule

Price paid for investment		$310,000		
Less book value interest acquired:				
Common stock	$100,000			
Retained earnings	300,000			
Income of Karen, Jan. 1 to July 1	30,000			
Total equity	$430,000			
Interest acquired	× 80%	344,000		
Excess of book value over cost (credit)		$ (34,000)		
Adjustments:				Amortization
Depreciable fixed assets		$ (34,000)	5 credit	$(6,800)
Goodwill		—		
Extraordinary gain		—		
Total adjustments		$ (34,000)		

Exercise 3-10, Continued

(2)	EL	Common Stock—Karen	80,000	
		Retained Earnings—Karen	240,000	
		Purchased Income	24,000	
		Investment in Karen Company		344,000
		To eliminate pro rata share of the beginning-of-the-year Karen equity balances and purchased income.		
	D	Investment in Karen Company	34,000	
		Equipment		34,000
		To distribute excess book value to plant assets.		
	A	Accumulated Depreciation [($34,000 ÷ 5) × 1/2]	3,400	
		General Expenses		3,400
		To reduce depreciation expense for one-half year.		

(3)

Neiman Company and Subsidiary Karen Company
Consolidated Income Statement
For Year Ended December 31, 20X2

Sales	$500,000
Less cost of goods sold	270,000
Gross profit	$230,000
Less general expenses (less $3,400 adjustment)	106,600
Net income of Neiman and Karen combined	$123,400
Net income earned by outside interests	24,000
Consolidated net income	$ 99,400
Distributed to noncontrolling interest	12,000
Distributed to controlling interest	$ 87,400

Subsidiary Karen Company Income Distribution

	Internally generated net income	$60,000
	Adjusted income	$60,000
	NCI share	× 20%
	NCI	$12,000

Exercise 3-10, Concluded

Parent Neiman Company Income Distribution

	Internally generated net income	$60,000
	80% × Karen adjusted income of $30,000 (past 6 months)	24,000
	Equipment depreciation	3,400
	Controlling interest	$87,400

EXERCISE 3-11

Calculation of book value of investment:

Purchase cost	$850,000
Add 80% of $200,000 increase in Baker retained earnings	160,000
Deduct amortization of excess (5 years × $8,000 per year)	(40,000)
Balance	$970,000
80% of fair value of Baker Company (80% × $1,000,000)	$800,000

Since the book value exceeds the fair value of the interest, goodwill is impaired.

Impairment loss:

Fair value of Baker Company	$1,000,000
Fair value of Baker Company identifiable assets	900,000
Estimated goodwill	$ 100,000
80% applicable to parent	$ 80,000
Existing goodwill	210,000
Impairment loss	$ 130,000

EXERCISE 3A-1

(1)	Investment in Lamb Company	500,000	
	Common Stock		100,000
	Paid-In Capital in Excess of Par		400,000

(2)

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts (net of liabilities)	$134,000	$134,000	$134,000
Nonpriority accounts	252,000	252,000	386,000

Price Analysis

Price	$500,000	
Assign to priority accounts	134,000	full value
Assign to nonpriority accounts	252,000	full value
Goodwill (net of deferred tax liability)	114,000	
Extraordinary gain	—	

Determination and Distribution of Excess Schedule

Price paid for investment		$500,000		
Less book value interest acquired:				
Common stock	$100,000			
Retained earnings	230,000			
Total equity	$330,000			
Interest acquired	× 100%	330,000		
Excess of cost over book value (debit)		$170,000		
Adjustments:				
Inventory		$ 20,000	debit	
Deferred tax liability		(6,000)	credit	
Depreciable fixed assets		60,000	debit	
Deferred tax liability		(18,000)	credit	
Goodwill (net)		$114,000		
Goodwill ($114,000 ÷ 70%)	$162,857			
Deferred tax liability, 30%	(48,857)			
Net Goodwill	$114,000			

(3) Elimination Entries:

Common Stock	100,000	
Retained Earnings	230,000	
Investment in Lamb Company		330,000
Inventory	20,000	
Equipment	60,000	
Goodwill	162,857	
Deferred Tax Liability (on inventory, equipment, and goodwill)		72,857
Investment in Lamb Company		170,000

EXERCISE 3A-2

(1)

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts (net of liabilities)	$ 74,000	$ 66,600	$ 66,600
Nonpriority accounts.....	255,000	229,500	296,100

Price Analysis

Price	$465,000	
Assign to priority accounts.....	66,600	full value
Assign to nonpriority accounts.....	229,500	full value
Goodwill (net of deferred tax liability)	168,900	

Determination and Distribution of Excess Schedule

Price paid for investment.....		$465,000			
Less book value interest acquired:					
Common stock.....	$100,000				
Paid-in capital in excess of par	130,000				
Retained earnings.....	50,000				
Total equity.....	$280,000				
Interest acquired.....	× 90%	252,000			
Excess of cost over book value (debit)...		$213,000			
Adjustments:					Amortization
Inventory.....		$ 18,000	1	debit	
Deferred tax liability		(5,400)	5	credit	$(1,080)
Building.....		45,000	10	debit	4,500
Deferred tax liability		(13,500)	5	credit	(2,700)
Goodwill (net of deferred tax liability)		168,900		debit	
Total adjustments		$213,000			

Distributed to goodwill ($168,900 ÷ 70%)	$241,286
Distributed to deferred tax liability (30% × $241,286).....	(72,386)
Goodwill	$168,900

Exercise 3A-2, Concluded

(2)

Lucy Company and Subsidiary Desmond Company
Consolidated Income Statement
For Year Ended December 31, 20X1

Revenue		$550,000
Less cost of goods sold (add $18,000 adjustment)		308,000
Gross profit		$242,000
Less expenses:		
Depreciation expense (add $4,500 adjustment)	$79,500	
General expenses	75,000	154,500
Consolidated income before tax		$ 87,500
Provision for tax (30%)		26,250
Consolidated net income		$ 61,250
Distributed to NCI		1,400
Distributed to controlling interest		$ 59,850

Subsidiary Desmond Company Income Distribution

	Internally generated net income	$14,000
	Adjusted income	$14,000
	NCI share	× 10%
	NCI	$ 1,400

Parent Lucy Company Income Distribution

Inventory consumption	$18,000	Internally generated net income before tax	$ 90,000
Building depreciation	4,500		
		Adjusted income	$ 67,500
		Tax, 30%	(20,250)
		Adjusted net income	$ 47,250
		90% × Desmond adjusted Net income of $14,000	12,600
		Controlling interest	$ 59,850

PROBLEMS

PROBLEM 3-1

(1)

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$ (80,000)	$ (64,000)	$ (64,000)
Nonpriority accounts	800,000	640,000	576,000

Price Analysis

Price	$740,000	
Assign to priority accounts	(64,000)	full value
Assign to nonpriority accounts	640,000	full value
Goodwill	164,000	

Determination and Distribution of Excess Schedule

						Amortization
Price paid for investment		$740,000				
Less book value interest acquired:						
Common stock	$100,000					
Paid-in capital in excess of par	200,000					
Retained earnings	250,000					
Total equity	$550,000					
Interest acquired	× 80%	440,000				
Excess of cost over book value (debit)		$300,000				
Adjustments:						
Land		$ 56,000	—	debit D1		
Buildings		80,000	20	debit D2		$4,000
Goodwill		164,000		debit D3		
Extraordinary gain		—				
Total adjustments		$300,000				

Problem 3-1, Continued

(2) Investment Entries:

Event	Simple Equity Method		
20X1			
Subsidiary income of $60,000 reported to parent	Investment in Saul Company	48,000	
	Subsidiary Income.....		48,000
Dividends of $10,000 paid by Saul	Cash	8,000	
	Investment in Saul Company.....		8,000
20X2			
Subsidiary income of $45,000 reported to parent	Investment in Saul Company	36,000	
	Subsidiary Income.....		36,000
Dividends of $10,000 paid by Saul	Cash	8,000	
	Investment in Saul Company.....		8,000

Event	Sophisticated Equity Method		
20X1			
Subsidiary income of $60,000 reported to parent	Investment in Saul Company*	44,000	
	Subsidiary Income.....		44,000
Dividends of $10,000 paid by Saul	Cash	8,000	
	Investment in Saul Company.....		8,000
20X2			
Subsidiary income of $45,000 reported to parent	Investment in Saul Company*	32,000	
	Subsidiary Income.....		32,000
Dividends of $10,000 paid by Saul	Cash	8,000	
	Investment in Saul Company.....		8,000

*Amortization of building excess deducted ($4,000).

Event	Cost Method		
20X1			
Subsidiary income of $60,000 reported to parent	No entry		
Dividends of $10,000 paid by Saul	Cash	8,000	
	Dividend Income		8,000
20X2			
Subsidiary income of $45,000 reported to parent	No entry		
Dividends of $10,000 paid by Saul	Cash	8,000	
	Dividend Income		8,000

Problem 3-1, Continued

(3) Elimination Entries:

Event		Simple Equity Method		
20X1				
Eliminate current-year entries	CY1	Subsidiary Income	48,000	
		Investment in Saul		48,000
	CY2	Investment in Saul	8,000	
		Dividends Declared		8,000
Eliminate investment as of Jan. 1	EL	Common Stock	80,000	
		Paid-In Capital in Excess of Par	160,000	
		Retained Earnings	200,000	
		Investment in Saul		440,000
Distribute excess	D1	Land	56,000	
	D2	Building	80,000	
	D3	Goodwill	164,000	
	D	Investment in Saul		300,000
Amortize excess	A2	Depreciation Expense	4,000	
	A2	Accumulated Depreciation		4,000
20X2				
Eliminate current-year entries	CY1	Subsidiary Income	36,000	
		Investment in Saul		36,000
	CY2	Investment in Saul	8,000	
		Dividends Declared		8,000
Eliminate investment as of Jan. 1	EL	Common Stock	80,000	
		Paid-In Capital in Excess of Par	160,000	
		Retained Earnings	240,000	
		Investment in Saul		480,000
Distribute excess	D1	Land	56,000	
	D2	Building	80,000	
	D3	Goodwill	164,000	
	D	Investment in Saul		300,000
Amortize excess	A2–A3	Retained Earnings—Peter	4,000	
	A2	Depreciation Expense	4,000	
	A2	Accumulated Depreciation		8,000

Problem 3-1, Continued

Event		Sophisticated Equity Method		
20X1				
Eliminate current-year entries	CY1	Subsidiary Income	44,000	
		Investment in Saul		44,000
	CY2	Investment in Saul	8,000	
		Dividends Declared		8,000
Eliminate investment as of Jan. 1	EL	Common Stock	80,000	
		Paid-In Capital in Excess of Par	160,000	
		Retained Earnings	200,000	
		Investment in Saul		440,000
Distribute excess	D1	Land	56,000	
	D2	Building	80,000	
	D3	Goodwill	164,000	
	D	Investment in Saul		300,000
Amortize excess	A2	Depreciation Expense	4,000	
	A2	Accumulated Depreciation		4,000
20X2				
Eliminate current-year entries	CY1	Subsidiary Income	32,000	
		Investment in Saul		32,000
	CY2	Investment in Saul	8,000	
		Dividends Declared		8,000
Eliminate investment as of Jan. 1	EL	Common Stock	80,000	
		Paid-In Capital in Excess of Par	160,000	
		Retained Earnings	240,000	
		Investment in Saul		480,000
Distribute excess	D1	Land	56,000	
	D2	Building (net)*	76,000	
	D3	Goodwill	164,000	
	D	Investment in Saul		296,000
Amortize excess	A2	Depreciation Expense	4,000	
	A2	Accumulated Depreciation		4,000

*(80,000 – 4,000)

Problem 3-1, Concluded

Event		Cost Method		
20X1				
Eliminate current-year entries	CY2	Dividend Income	8,000	
		Dividends Declared		8,000
Eliminate investment as of Jan. 1	EL	Common Stock	80,000	
		Paid-In Capital in Excess of Par	160,000	
		Retained Earnings	200,000	
		Investment in Saul		440,000
Distribute excess	D1	Land	56,000	
	D2	Building	80,000	
	D3	Goodwill	164,000	
	D	Investment in Saul		300,000
Amortize excess	A2	Depreciation Expense	4,000	
	A2	Accumulated Depreciation		4,000
20X2				
Equity conversion	CV	Investment in Saul	40,000	
		Retained Earnings—Peter		40,000
Eliminate current-year entries	CY2	Dividend Income	8,000	
		Dividends Declared		8,000
Eliminate investment as of Jan. 1	EL	Common Stock	80,000	
		Paid-In Capital in Excess of Par	160,000	
		Retained Earnings	240,000	
		Investment in Saul		480,000
Distribute excess	D1	Land	56,000	
	D2	Building	80,000	
	D3	Goodwill	164,000	
	D	Investment in Saul		300,000
Amortize excess	A2–A3	Retained Earnings—Peter	4,000	
	A2	Depreciation Expense	4,000	
	A2	Accumulated Depreciation		8,000

PROBLEM 3-2

(1)

Determination and Distribution of Excess Schedule

Price paid for investment		$308,000				
Less book value interest acquired:						
Common stock	$ 50,000					
Other paid-in capital	100,000					
Retained earnings	150,000					
Total equity	$300,000					
Interest acquired	× 80%	240,000				
Excess of cost over book value (debit)		$ 68,000				
Adjustments:						Amortization
Inventory		$ 8,000	1	debit D1		
Buildings		20,000	10	debit D2		$2,000
Goodwill		40,000		debit D3		
Extraordinary gain						
Total adjustments		$ 68,000				

(2) Entries under the simple equity method:

	20X1			20X2		
	Debit		Credit	Debit		Credit
Investment in Soll	48,000	(1)		72,000	(2)	
Soll Income			48,000			72,000
Cash	16,000	(3)		24,000	(4)	
Investment in Soll			16,000			24,000

(1) 80% of $60,000 net income
(2) 80% of $90,000 net income
(3) 80% of $20,000 dividends
(4) 80% of $30,000 dividends

(3) Balance in Investment in Soll Company:

Cost	$308,000
Equity in 20X1 income	48,000
Share of dividends received—20X1	(16,000)
Equity in 20X2 income	72,000
Share of dividends received—20X2	(24,000)
Total	$388,000

Problem 3-2, Continued

(4)

Peres Company and Soll Company
Worksheet for Consolidated Financial Statements
For Year Ended December 31, 20X2

	Trial Balance		Eliminations and Adjustments				Consolidated Income Statement	NCI	Controlling Retained Earnings	Consol. Balance Sheet
	Peres	Soll	Dr.		Cr.					
Inventory, December 31	100,000		50,000							150,000
Other Current Assets	148,000		180,000							328,000
Investment in Soll	388,000		(CY2)	24,000	(CY1)	72,000				
				(EL)	272,000					
				(D)	68,000					
Land	50,000		50,000							100,000
Buildings and Equipment	350,000		320,000	(D2)	20,000					690,000
Accumulated Depreciation	(100,000)		(60,000)		(A)	4,000				(164,000)
Goodwill			(D3)	40,000						40,000
Other Intangibles	20,000									20,000
Current Liabilities	(120,000)		(40,000)							(160,000)
Bonds Payable		(100,000)								(100,000)
Other Long-Term Liabilities	(200,000)									(200,000)
Common Stock—Peres	(200,000)									(200,000)
Other Paid-In Capital—Peres	(100,000)									(100,000)
Retained Earnings—Peres	(214,000)		(D1)	8,000						
			(A)	2,000						(204,000)
Common Stock—Soll		(50,000)	(EL)	40,000					(10,000)	
Other Paid-In Capital—Soll		(100,000)	(EL)	80,000					(20,000)	
Retained Earnings—Soll		(190,000)	(EL)	152,000					(38,000)	

Net Sales	(520,000)		(450,000)					(970,000)		
Cost of Goods Sold	300,000		260,000					560,000		
Operating Expenses	120,000		100,000	(A)	2,000			222,000		
Subsidiary Income	(72,000)		(CY1)	72,000						
Dividends Declared—Peres	50,000									50,000
Dividends Declared—Soll		30,000			(CY2)	24,000			6,000	
Total	0	0		440,000		440,000				
Consolidated Net Income							(188,000)			
To Noncontrolling Interest (see distribution schedule)						18,000			(18,000)	
To Controlling Interest (see distribution schedule)						170,000				(170,000)
Total NCI								(80,000)		(80,000)
Retained Earnings—Controlling Interest, December 31, 20X2									(324,000)	(324,000)
										0

Problem 3-2, Concluded

Eliminations and Adjustments:

(CY) Eliminate the current-year entries made in the investment account and in the subsidiary income account.

(EL) Eliminate the pro rata share of Soll Company equity balances at the beginning of the year against the investment account.

(D) Distribute the $68,000 excess cost as required by the Determination and Distribution of Excess Schedule.

(D1) Because FIFO is used for inventory, allocate the $8,000 write-up to the January 1, 20X2, retained earnings of Peres Company.

(D2) Buildings, $20,000.

(D3) Goodwill, $40,000.

(A) Cumulatively depreciate the write-up to Buildings over 10 years. Charge the 20X1 Depreciation against January 1, 20X2, retained earnings of Peres Company. Charge the 20X2 Depreciation to Operating Expenses.

Income Distribution Schedules

Soll Company

Internally generated net income	$90,000
Adjusted income	$90,000
NCI share	× 20%
NCI	$18,000

Peres Company

Building depreciation	$2,000	Internally generated net income	$100,000
		80% × Soll adjusted net income	72,000
		Controlling interest	$170,000

PROBLEM 3-3

(1)

Determination and Distribution of Excess Schedule

Price paid for investment			$308,000			
Less book value interest acquired:						
Common stock	$	50,000				
Other paid-in capital		100,000				
Retained earnings		150,000				
Total equity		$300,000				
Interest acquired	×	80%	240,000			
Excess of cost over book value (debit)			$ 68,000			
Adjustments:						Amortization
Inventory			$ 8,000	1	debit D1	
Buildings			20,000	10	debit D2	$2,000
Goodwill			40,000		debit D3	
Extraordinary gain						
Total adjustments			$ 68,000			

(2) Entries under the sophisticated equity method:

	20X1			20X2		
	Debit		Credit	Debit		Credit
Investment in Soll	38,000	(1)		70,000	(2)	
Soll Income			38,000			70,000
Cash	16,000	(3)		24,000	(4)	
Investment in Soll			16,000			24,000

(1) 80% of $60,000 net income less $10,000 ($8,000 write-off of inventory and $2,000 extra depreciation)
(2) 80% of $90,000 net income less $2,000 (extra depreciation)
(3) 80% of $20,000 dividends
(4) 80% of $30,000 dividends

(3) Balance in Investment in Soll Company:
$308,000 + $38,000 – $16,000 + $70,000 – $24,000 = $376,000

Problem 3-3, Continued

(4)

Peres Company and Soll Company
Worksheet for Consolidated Financial Statements
For Year Ended December 31, 20X2

	Trial Balance		Eliminations and Adjustments		Consolidated Income		Controlling Retained	Consol. Balance
	Peres	Soll	Dr.	Cr.	Statement	NCI	Earnings	Sheet
Inventory, December 31	100,000		50,000					150,000
Other Current Assets	148,000		180,000					328,000
Investment in Soll	376,000		(CY2) 24,000	(CY1) 70,000				
			(EL)	272,000				
			(D)	58,000				
Land	50,000		50,000					100,000
Buildings and Equipment	350,000		320,000 (D2)	18,000				688,000
Accumulated Depreciation	(100,000)		(60,000)	(A)	2,000			(162,000)
Goodwill			(D3) 40,000					40,000
Other Intangibles	20,000							20,000
Current Liabilities	(120,000)		(40,000)					(160,000)
Bonds Payable		(100,000)						(100,000)
Other Long-Term Liabilities	(200,000)							(200,000)
Common Stock—Peres	(200,000)							(200,000)
Other Paid-In Capital—Peres	(100,000)							(100,000)
Retained Earnings—Peres	(204,000)							(204,000)
Common Stock—Soll		(50,000)	(EL) 40,000				(10,000)	
Other Paid-In Capital—Soll		(100,000)	(EL) 80,000				(20,000)	
Retained Earnings—Soll		(190,000)	(EL) 152,000				(38,000)	
Net Sales	(520,000)		(450,000)			(970,000)		

Cost of Goods Sold	300,000	260,000					560,000			
Operating Expenses	120,000	100,000	(A)	2,000			222,000			
Subsidiary Income	(70,000)		(CY1)	70,000						
Dividends Declared—Peres	50,000									50,000
Dividends Declared—Soll		30,000			(CY2)	24,000			6,000	
Total	0	0		426,000		426,000				
Consolidated Net Income							(188,000)			
To Noncontrolling Interest (see distribution schedule)						18,000			(18,000)	
To Controlling Interest (see distribution schedule)						170,000				(170,000)
Total NCI							(80,000)			(80,000)
Retained Earnings—Controlling Interest, December 31, 20X2									(324,000)	(324,000)
										0

Problem 3-3, Concluded

Eliminations and Adjustments:

(CY) Eliminate the current-year entries made in the investment account and in the subsidiary income account.

(EL) Eliminate the pro rata share of Soll Company equity balances at the beginning of the year against the investment account.

(D) Distribute the $58,000 remaining excess of cost over book value ($68,000 less 20X1 charges of $8,000 to Cost of Goods Sold for inventory and $2,000 to Operating Expenses for extra depreciation).

(D2) Buildings for $18,000.

(D3) Goodwill for $40,000.

(A) For 20X2 only, depreciate the write-up to Buildings over 10 years.

(A2) Charge the 20X2 Depreciation against Operating Expenses.

Income Distribution Schedules

Soll Company

	Internally generated net income	$90,000
	Adjusted income	$90,000
	NCI share	× 20%
	NCI	$18,000

Peres Company

Building depreciation	$2,000	Internally generated net income	$100,000
		80% × Soll adjusted net income	72,000
		Controlling interest	$170,000

PROBLEM 3-4

(1)

Determination and Distribution of Excess Schedule

Price paid for investment		$460,000
Less book value interest acquired:		
Common stock	$ 50,000	
Paid-in capital in excess of par	15,000	
Retained earnings	135,000	
Total equity	$200,000	
Interest acquired	× 100%	200,000
Excess of cost over book value (debit)		$260,000
Adjustments:		
Goodwill		$260,000
Extraordinary gain		—
Total adjustments		$260,000

(2)

Chango Company and Subsidiary Lhasa Inc.
Consolidated Income Statement
For Year Ended December 31, 20X3

Revenue	$670,000
Expenses	620,000
Consolidated net income	$ 50,000

Chango Company and Subsidiary Lhasa Inc.
Retained Earnings Statement
For Year Ended December 31, 20X3

Retained earnings, Chango Company, January 1, 20X3	$230,000
Adjustments:	
Cost to equity conversion	35,000
Adjusted balance, January 1, 20X3	$265,000
Add consolidated net income	50,000
Less dividends declared	(10,000)
Balance, December 31, 20X3	$305,000

Problem 3-4, Concluded

Chango Company and Subsidiary Lhasa Inc.
Consolidated Balance Sheet
December 31, 20X3

Assets

Current assets		$ 660,000
Depreciable fixed assets	$2,245,000	
Accumulated depreciation	(475,000)	
1,770,000		
Goodwill		260,000
Total assets		$2,690,000

Liabilities and Stockholders' Equity

Liabilities		$1,125,000
Stockholders' equity:		
Common stock	$ 220,000	
Paid-in capital in excess of par	1,040,000	
Retained earnings	305,000	
1,565,000		
Total liabilities and stockholders' equity		$2,690,000

PROBLEM 3-5

(1)

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$ (50,000)	$ (50,000)	$ (50,000)
Nonpriority accounts	270,000	270,000	220,000

Price Analysis

Price	$220,000	
Assign to priority accounts	(50,000)	full value
Assign to nonpriority accounts	270,000	full value
Goodwill	—	

Problem 3-5, Continued

Determination and Distribution of Excess Schedule

Price paid for investment		$220,000			
Less book value interest acquired:					
Common stock	$100,000				
Paid-in capital in excess of par	50,000				
Retained earnings	100,000				
Total equity	$250,000				
Interest acquired	× 100%	250,000			
Excess of cost over book value (debit)		$ 30,000			
Adjustments:					Amortization
Buildings		$ (30,000)	10	credit D	$(3,000)
Goodwill		—			
Extraordinary gain		—			
Total adjustments		$ (30,000)			

Problem 3-5, Continued

(2)

Bell Corporation and Subsidiary Stockdon Corporation
Worksheet for Consolidated Financial Statements
For Year Ended December 31, 20X7

	Trial Balance		Eliminations and Adjustments		Consolidated Income Statement	NCI	Controlling Retained Earnings	Consol. Balance Sheet
	Bell	Stockdon	Dr.	Cr.				
Cash	180,000		143,000					323,000
Inventory	60,000		30,000					90,000
Land	120,000		120,000					240,000
Buildings (net)	600,000		162,000 (A)	3,000 (D)	30,000			735,000
Investment in Stockdon Corporation	220,000		(D)	30,000 (EL)	250,000			
Accounts Payable	(405,000)		(210,000)					(615,000)
Common Stock ($3 par)—Bell	(300,000)							(300,000)
Paid-In Capital in Excess of Par—Bell	(180,000)							(180,000)
Retained Earnings—Bell	(255,000)							(255,000)
Common Stock ($10 par)—Stockdon		(100,000)	(EL)	100,000				
Paid-In Capital in Excess of Par—Stockdon		(50,000)	(EL)	50,000				
Retained Earnings—Stockdon		(100,000)	(EL)	100,000				
Sales	(210,000)		(40,000)			(250,000)		
Cost of Goods Sold	120,000		35,000			155,000		
Other Expenses	45,000		10,000	(A)	3,000		52,000	
Dividends Declared	5,000							5,000
Total	0	0	283,000		283,000			
Consolidated Income					(43,000)			(43,000)
Retained Earnings—Controlling Interest, December 31, 20X7							(293,000)	(293,000)
								0

Problem 3-5, Concluded

Eliminations and Adjustments:

(EL) Eliminate 100% of the subsidiary's January 20X7, equity balances against the balance of the investment account.

(D) Distribute excess of Stockdon book value over cost of investment according to the Determination and Distribution of Excess Schedule.

(A) Reduce the buildings account by $3,000 as a result of the amortization resulting from the excess adjustment resulting from Entry 2.

(3)

Bell Corporation and Subsidiary Stockdon Corporation
Consolidated Income Statement
For Year Ended December 31, 20X7

Revenues	$ 250,000
Cost of goods sold	(155,000)
Gross profit	$ 95,000
Other expenses	(52,000)
Consolidated net income	$ 43,000

Bell Corporation and Subsidiary Stockdon Corporation
Retained Earnings Statement
For Year Ended December 31, 20X7

Retained earnings, January 1, 20X7	$255,000
Add distribution of income	43,000
Less dividends declared	(5,000)
Balance, December 31, 20X7	$293,000

Bell Corporation and Subsidiary Stockdon Corporation
Consolidated Balance Sheet
December 31, 20X7

Assets

Current assets:		
Cash	$323,000	
Inventory	90,000	$ 413,000
Property, plant, and equipment:		
Land	$240,000	
Buildings	735,000	975,000
Total assets		$1,388,000

Liabilities and Stockholders' Equity

Current liabilities		$ 615,000
Stockholders' equity:		
Common stock	$300,000	
Paid-in capital in excess of par	180,000	

Retained earnings.....	293,000	
773,000		
Total liabilities and stockholders' equity		$1,388,000

PROBLEM 3-6

(1)

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$ (90,000)	$ (72,000)	$ (72,000)
Nonpriority accounts	325,000	260,000	188,000

Price Analysis

Price	$270,000	
Assign to priority accounts	(72,000)	full value
Assign to nonpriority accounts	260,000	full value
Goodwill	82,000	

Determination and Distribution of Excess Schedule

Price paid for investment		$270,000			
Less book value interest acquired:					
Common stock	$100,000				
Paid-in capital in excess of par	120,000				
Retained earnings	(25,000)				
Total equity	$195,000				
Interest acquired	× 80%	156,000			
Excess of cost over book value (debit)		$114,000			
Adjustments:					Amortization
Buildings		$ 32,000	10	debit D1	$3,200
Goodwill		82,000		debit D2	
Extraordinary gain		—			
Total adjustments		$114,000			

Problem 3-6, Continued

(2)

Prescott Company and Subsidiary Scully Company
Worksheet for Consolidated Financial Statements
For Year Ended December 31, 20X2

	Trial Balance		Eliminations and Adjustments		Consolidated Income		Controlling Retained	Consol. Balance
	Prescott	Scully	Dr.	Cr.	Statement	NCI	Earnings	Sheet
Current Assets	180,000		115,000					295,000
Land	150,000		75,000					225,000
Buildings	590,000		350,000 (D1)	32,000				972,000
Accumulated Depreciation—Buildings	(265,000)		(182,000)	(A) 6,400				(453,400)
Investment in Scully	294,000		(CY2) 4,000	(CY1) 20,000				
			(EL)	164,000				
			(D)	114,000				
Goodwill			(D2) 82,000					82,000
Liabilities	(175,000)		(133,000)					(308,000)
Common Stock—Prescott	(200,000)							(200,000)
Retained Earnings, Jan. 1, 20X2—Prescott	(503,000)		(A) 3,200					
							(499,800)	
Common Stock—Scully		(100,000)	(EL) 80,000				(20,000)	
Paid-In Capital in Excess of Par—Scully		(120,000)	(EL) 96,000				(24,000)	
Retained Earnings, Jan. 1, 20X2—Scully		15,000		(EL)	12,000		3,000	
Sales	(360,000)		(120,000)			(480,000)		
Cost of Goods Sold	179,000		50,000			229,000		
Expenses	120,000		45,000					
			(A) 3,200			168,200		
Subsidiary Income	(20,000)		(CY1) 20,000					
Dividends Declared	10,000		5,000	(CY2)	4,000			1,000
Total	0	0	320,400		320,400			
Consolidated Net Income					(82,800)			
To Noncontrolling Interest (see distribution schedule)					5,000		(5,000)	

To Controlling Interest (see distribution schedule)	77,800			(77,800)
Total NCI		(45,000)		(45,000)
Retained Earnings—Controlling Interest, December 31, 20X2			(567,600)	(567,600)
				0

Problem 3-6, Continued

Eliminations and Adjustments:

(CY1) Eliminate the subsidiary income against the investment account.
(CY2) Eliminate the 80% ownership portion of the subsidiary dividends.
(EL) Eliminate the 80% ownership portion of the subsidiary equity accounts against the investment.
(D) Distribute the excess cost as follows, in accordance with the Determination and Distribution of Excess Schedule:
(D1) Increase buildings by $32,000.
(D2) Increase Goodwill $82,000.
(A) Record $3,200 annual increase in building depreciation for current and prior years.

Subsidiary Scully Company Income Distribution

Internally generated net income	$25,000
Adjusted income	$25,000
NCI share	× 20%
NCI	$ 5,000

Parent Prescott Company Income Distribution

Buildings depreciation	$3,200	Internally generated net income	$61,000
		80% × Scully adjusted income of $25,000	20,000
		Controlling interest	$77,800

(3)

Prescott Company and Subsidiary Scully Company
Consolidated Income Statement
For Year Ended December 31, 20X2

Sales	$480,000
Cost of goods sold	229,000
Gross profit	$251,000
Expenses	168,200
Consolidated net income	$ 82,800
Distributed to noncontrolling interest	5,000
Distributed to controlling interest	$ 77,800

Problem 3-6, Concluded

Prescott Company and Subsidiary Scully Company
Retained Earnings Statement
For Year Ended December 31, 20X2

Retained earnings, January 1, 20X1	$499,800
Add distribution of net income	77,800
Less dividends declared	(10,000)
Balance, December 31, 20X1	$567,600

Prescott Company and Subsidiary Scully Company
Consolidated Balance Sheet
December 31, 20X2

Assets

Current assets			$ 295,000
Property, plant, and equipment:			
Land		$225,000	
Buildings	$ 972,000		
Accumulated depreciation	(453,400)	518,600	743,600
Goodwill			82,000
Total assets			$1,120,600

Liabilities and Stockholders' Equity

Liabilities		$ 308,000
Stockholders' equity:		
NCI		45,000
Controlling interest:		
Common stock ($10 par)	$200,000	
Retained earnings	567,600	767,600
Total liabilities and stockholders' equity		$1,120,600

PROBLEM 3-7

(1)

Determination and Distribution of Excess Schedule

Price paid for investment		$275,000				
Less book value interest acquired:						
Common stock	$150,000					
Retained earnings	50,000					
Income of Summer, Jan. 1 to May 1	4,000					
Total equity	$204,000					
Interest acquired	× 80%	163,200				
Excess of cost over book value (debit)		$111,800				
Adjustments:						Amortization
Equipment		$ 8,000	5	debit D1		$1,600
Buildings		40,000	20	debit D2		2,000
Goodwill		63,800		debit D3		
Extraordinary gain		—				
Total adjustments		$111,800				

Problem 3-7, Continued

(2)

Jeter Corporation and Subsidiary Summer Company
Worksheet for Consolidated Financial Statements
For Year Ended December 31, 20X1

	Trial Balance		Eliminations and Adjustments		Consolidated Income Statement	NCI	Controlling Retained Earnings	Consol. Balance Sheet
	Jeter	Summer	Dr.	Cr.				
Cash	296,600	393,600	97,000					
Land	160,000	250,000	90,000					
Buildings	225,000	400,000	135,000 (D2)	40,000				
Accumulated Depreciation—Buildings	(100,000)	(152,000)	(50,000)	(A2) 2,000				
Equipment	450,000	608,000	150,000 (D1)	8,000				
Accumulated Depreciation—Equipment	(115,000)	(176,600)	(60,000)	(A1) 1,600				
Investment in Summer Company	284,600			(CY1) 9,600				
			(EL)	163,200				
			(D)	111,800				
Goodwill		63,800	(D3) 63,800					
Liabilities	(480,000)	(630,000)	(150,000)					
Common Stock ($100 par)—Jeter	(400,000)	(400,000)						
Paid-In Capital in Excess of Par—Jeter	(40,000)	(40,000)						
Retained Earnings—Jeter	(251,600)							(251,600)
Common Stock ($5 par)—Summer		(150,000)	(EL) 120,000				(30,000)	
Retained Earnings—Summer		(50,000)	(EL) 40,000				(10,000)	
Purchased Income			(EL) 3,200			3,200		
Sales	(460,000)		(120,000)			(580,000)		
Cost of Goods Sold	220,000		60,000			280,000		
Other Expenses	210,000		48,000 (A2)	2,000		261,600		
			(A1) 1,600					
Subsidiary Income	(9,600)		(CY1) 9,600					

Dividends Declared	10,000							10,000
Total	0	0	288,200	288,200				
Consolidated Net Income				(35,200)				
To Noncontrolling Interest (see distribution schedule)				2,400		(2,400)		
To Controlling Interest (see distribution schedule)				32,800				(32,800)
Total NCI					(42,400)			(42,400)
Retained Earnings—Controlling Interest, December 31, 20X1							(274,400)	(274,400)
								0

Problem 3-7, Continued

Subsidiary Summer Company Income Distribution

Internally generated net income	$ 12,000
Adjusted income	$ 12,000
NCI share	× 20%
NCI	$ 2,400

Parent Jeter Company Income Distribution

Buildings depreciation	(A2)	$2,000	Internally generated net income	$ 30,000
Equipment depreciation	(A1)	1,600	80% × Summer adjusted income of $12,000 (last 8 months)	6,400
			Controlling interest	$ 32,800

Eliminations and Adjustments:

(CY1) Eliminate parent's current-year entry for subsidiary income.

(EL) Eliminate the pro rata share of Summer Company equity balances and purchased income.

(D) Distribute the excess as determined by the Determination and Distribution of Excess Schedule:

(D1) Increase equipment by $8,000.

(D2) Increase buildings by $40,000.

(D3) Record goodwill of $63,800.

Record amortizations resulting from the asset and liability revaluations of Entry 3:

(A1) Amortize equipment for $1,600 ($8,000 ÷ 5 years) for the current year.

(A2) Amortize buildings for $2,000 ($40,000 ÷ 20 years) for the current year.

(3)

Jeter Corporation and Subsidiary Summer Company
Consolidated Income Statement
For Year Ended December 31, 20X1

Revenues	$580,000
Cost of goods sold	280,000
Gross profit	$300,000
Other expenses	261,600
Net income of Jeter and Summer, combined	$ 38,400
Net income earned by outside interests	3,200
Consolidated net income	$ 35,200
To noncontrolling interest	2,400
To controlling interest	$ 32,800

Problem 3-7, Concluded

Jeter Corporation and Subsidiary Summer Company
Consolidated Retained Earnings Statement
For Year Ended December 31, 20X1

Retained earnings, beginning of year	$251,600
Add distribution of income	32,800
Less dividends declared	(10,000)
Balance, end of year	$274,400

Jeter Corporation and Subsidiary Summer Company
Consolidated Balance Sheet
For Year Ended December 31, 20X1

Assets

Current assets:		
Cash		$ 393,600
Property, plant, and equipment:		
Land	$ 250,000	
Buildings	400,000	
Equipment	608,000	
Less accumulated depreciation*	(328,600)	
929,400		
Goodwill		63,800
Total assets		$1,386,800

Liabilities and Stockholders' Equity

Current liabilities		$ 630,000
Stockholders' equity:		
NCI		42,400
Controlling interest:		
Common stock	$400,000	
Paid-in capital in excess of par	40,000	
Retained earnings	274,400	
714,400		
Total liabilities and stockholders' equity		$1,386,800

*Includes both buildings and equipment depreciation.

PROBLEM 3-8

(1)

Determination and Distribution of Excess Schedule

Price paid for investment			$1,608,000			
Less book value interest acquired:						
Common stock		$1,000,000				
Paid-in capital in excess of par		300,000				
Retained earnings		400,000				
Total equity		$1,700,000				
Interest acquired	× 80%		1,360,000			
Excess of cost over book value (debit)			$ 248,000			
Adjustments:						Amortization
Inventory			$ 8,000		debit D1	
Buildings			40,000	8	debit D2	$5,000
Patents			80,000	10	debit D3	8,000
Goodwill			120,000		debit D4	
Extraordinary gain			—			
Total adjustments			$ 248,000			

Eliminations and Adjustments:

(CV) Convert from cost to the equity method as of January 1, 20X7. ($580,000 January 1, 20X7 – $400,000 January 1, 20X5 = $180,000 × 80% = $144,000.)

(CY2) Eliminate intercompany dividends.

(EL) Eliminate subsidiary equities.

(D) Distribute the excess cost as given by the Determination and Distribution of Excess Schedule:

(D1) Decrease parent's Retained Earnings by $8,000 for inventory sold.

(D2) Increase Equipment $40,000.

(D3) Increase Patents $80,000.

(D4) Increase Goodwill $120,000.

(A) Record amortizations resulting from the revaluations:

(A1) No amortizations necessary.

(A2) Record $5,000 annual increase in Equipment depreciation for the current and past two years.

(A3) Record $8,000 annual increase in Patents depreciation for the current and past two years.

Problem 3-8, Continued

Subsidiary Hughes Company Income Distribution

		Internally generated net income	$155,000
		Adjusted income	$155,000
		NCI share	× 20%
		NCI	$ 31,000

Parent Detner International Income Distribution

Equipment depreciation	$5,000	Internally generated net income	$185,000
Patent depreciation	8,000	80% × Hughes adjusted income of $155,000	124,000
		Controlling interest	$296,000

Problem 3-8, Concluded

(2)

Detner International and Subsidiary Hughes Company
Worksheet for Consolidated Financial Statements
For Year Ended December 31, 20X7

	Trial Balance		Eliminations and Adjustments		Consolidated Income Statement	NCI	Controlling Retained Earnings	Consol. Balance Sheet
	Detner	Hughes	Dr.	Cr.				
Current Assets	624,000	505,000						1,129,000
Equipment (net)	1,320,000	940,000 (D2)		40,000 (A2)	15,000			2,285,000
Patents	100,000	35,000 (D3)		80,000 (A3)	24,000			191,000
Other Assets	1,620,000	730,000						2,350,000
Investment in Hughes Company	1,608,000		(CV) 144,000	(EL)	1,504,000			
				(D) 248,000				
Goodwill		(D4) 120,000						120,000
Accounts Payable	(658,000)	(205,000)						(863,000)
Common Stock—Detner ($5 par)	(2,000,000)							(2,000,000)
Paid-In Capital in Excess of Par—Detner	(1,200,000)							(1,200,000)
Retained Earnings—Detner, Jan. 1, 20X7	(1,255,000)		(D1) 8,000	(CV)	144,000			
		(A2–A3) 26,000						
								(1,365,000)
Common Stock—Hughes		(1,000,000)	(EL)	800,000			(200,000)	
Paid-In Capital in Excess of Par—Hughes		(300,000)	(EL)	240,000			(60,000)	
Retained Earnings—Hughes, Jan. 1, 20X7		(580,000)	(EL)	464,000			(116,000)	
Sales	(905,000)	(425,000)				(1,330,000)		
Cost of Goods Sold	470,000	170,000				640,000		
Other Expenses	250,000	100,000	(A2)	5,000				
		(A3)	8,000					
					363,000			
Dividend Income	(24,000)		(CY2) 24,000					

Dividends Declared	50,000	30,000		(CY2)	24,000		6,000	50,000
Total	0	0	1,959,000		1,959,000			
Consolidated Net Income					(327,000)			
To Noncontrolling Interest (see distribution schedule)					31,000	(31,000)		
To Controlling Interest (see distribution schedule)					296,000		(296,000)	
Total NCI						(401,000)		(401,000)
Retained Earnings—Controlling Interest, December 31, 20X7						(1,611,000)		(1,611,000)
								0

PROBLEM 3-9

(1) Equity Method Worksheet

Common information:

Ownership interest	100%
Price paid (including direct acquisition costs)	$500,000
Year of consolidation (1 = year of purchase)	3

Acquired Company's Balance Sheet before Purchase

	Book Value	Fair Value	Life		Book Value	Fair Value	Life
Priority assets:							
Accounts receivable	32,000	32,000	1	Current liabilities	90,000	90,000	1
Inventory	40,000	38,000	1	Bonds payable	100,000	96,000	
Total priority assets	**72,000**	**70,000**		**Total liabilities**		**190,000**	
186,000							
Nonpriority assets:							
Land	60,000	150,000	—	Stockholders' equity:			
Buildings	250,000	300,000	20	Common stock, $1 par	10,000		
Accumulated depreciation	(50,000)			Paid-in capital in			
Equipment	100,000	100,000	5	excess of par	90,000		
Accumulated depreciation	(30,000)			Retained earnings	112,000		
Total nonpriority assets	**330,000**	**550,000**		Total equity		212,000	
Existing goodwill							
Total assets	**402,000**	**620,000**		**Value of net assets**	**212,000**	**434,000**	

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$(116,000)	$(116,000)	$(116,000)
Nonpriority accounts	550,000	550,000	434,000

Price Analysis

Price	$ 500,000	
Assign to priority accounts	(116,000)	full value
Assign to nonpriority accounts	550,000	full value
Goodwill	66,000	

Problem 3-9, Continued

Determination and Distribution of Excess Schedule

Price paid for investment		$500,000			
Less book value interest acquired:					
Common stock	$ 10,000				
Paid-in capital in excess of par	90,000				
Retained earnings	112,000				
Total equity	$212,000				
Interest acquired	× 100%	212,000			
Excess of cost over book value (debit)		$288,000			
Allocated to:					Amortization
Accounts receivable		—			
Inventory		$ (2,000)	1	credit D1	
Accounts payable		—			
Land		90,000	—	debit D2	
Bonds payable		4,000	5	debit D3	$ 800
Buildings		100,000	20	debit D4	5,000
Equipment		30,000	5	debit D5	6,000
Goodwill		66,000		debit D6	
Total adjustments		$288,000			

Problem 3-9, Continued

(2)

Amortization Schedules
Year of Consolidation 3

Account Adjustments	Life	Annual Amount	Current Year	Prior Years	Total	Key
Inventory..... D1	1	$ (2,000)	$ —	$ (2,000)	$ (2,000)	
Subject to amortization:						
Bonds payable.....	5	800	800	1,600	2,400	A3
Buildings.....	20	5,000	5,000	10,000	15,000	A4
Equipment..... A5	5	6,000	6,000	12,000	18,000	
Total amortizations			$11,800	$23,600	$35,400	

Subsidiary Sailair Income Distribution

	Internally generated net income.....	$35,000
	Adjusted income.....	$35,000

Parent Pcraft Income Distribution

Bonds amortization	$ 800	Internally generated net income.....	$165,000
Buildings depreciation.....	5,000		
Equipment depreciation	6,000	Controlling share of subsidiary (100% × Sailair adjusted income)	35,000
		Controlling interest	$188,200

Problem 3-9, Continued

Worksheet
Year of Consolidation 3

	Trial Balance		Eliminations and Adjustments				Consolidated Net		Controlling Retained	Consol. Balance
	Pcraft	Sailair	Dr.		Cr.		Income	NCI	Earnings	Sheet
Cash	80,000	140,000	60,000							
Accounts Receivable	90,000	145,000	55,000							
Inventory	120,000	206,000	86,000							
Land	100,000	250,000	60,000	(D2)	90,000					
Investment in Sailair	595,000				(CY1)		35,000			
			(CY2)	10,000						
				(EL)	282,000					
				(D)	288,000					
Buildings	800,000	1,200,000	300,000	(D4)	100,000					
Accumulated Depreciation	(220,000)	(315,000)	(80,000)			(A4)	15,000			
Equipment	150,000	280,000	100,000	(D5)	30,000					
Accumulated Depreciation	(90,000)	(180,000)	(72,000)			(A5)	18,000			
Goodwill		66,000	(D6)	66,000						
Current Liabilities	(60,000)	(162,000)	(102,000)							
Bonds Payable		(100,000)								
Discount (premium)		1,600	(D3)	4,000						
				(A3)	2,400					
Common Stock—Sailair		(10,000)	(EL)	10,000						
Paid-In Capital in Excess of Par—Sailair		(90,000)	(EL)	90,000						
Retained Earnings—Sailair		(182,000)	(EL)	182,000						

Common Stock—Pcraft	(100,000)									(100,000)
Paid-In Capital in Excess of Par—Pcraft	(900,000)									(900,000)
Retained Earnings—Pcraft	(385,000)									
				(D1)	2,000					
			(A3–A5)	23,600						(363,400)
Sales	(800,000)		(350,000)					(1,150,000)		
Cost of Goods Sold	450,000		210,000				660,000			
Depreciation Expense—Buildings	30,000		15,000	(A4)	5,000			50,000		
Depreciation Expense—Equipment	15,000		14,000	(A5)	6,000			35,000		
Other Expenses	140,000		68,000				208,000			
Interest Expense		8,000	(A3)	800			8,800			
Subsidiary Income	(35,000)		(CY1)	35,000						

Problem 3-9, Concluded

Worksheet
Year of Consolidation 3
(Concluded)

	Trial Balance		Eliminations and Adjustments		Consolidated Net Income	NCI	Controlling Retained Earnings	Consol. Balance Sheet
	Pcraft	Sailair	Dr.	Cr.				
Dividends Declared—Sailair		10,000		(CY2)	10,000			
Dividends Declared—Pcraft	20,000							20,000
Totals	0	0	652,400		652,400			
Consolidated Net Income					(188,200)			
NCI Share								
Controlling Share					188,200			(188,200)
NCI								
Controlling Retained Earnings							(531,600)	
(531,600)								
								0

Eliminations and Adjustments:
(CY1) Eliminate current-year subsidiary income.
(CY2) Current-year dividend.
(EL) Eliminate controlling interest in Sub equity.
(D) Distribute excess.
(A) Amortize excess.

PROBLEM 3-10

(1) Cost Method Worksheet

Common information:

Ownership interest	100%
Price paid (including direct acquisition costs)	$500,000
Year of consolidation (1 = year of purchase)	3

Acquired Company's Balance Sheet before Purchase

	Book Value	Fair Value	Life		Book Value	Fair Value	Life
Priority assets:							
Accounts receivable	32,000	32,000	1	Current liabilities	90,000	90,000	1
Inventory	40,000	38,000	1	Bonds payable	100,000	96,000	
Total priority assets	**72,000**	**70,000**		**Total liabilities**		**190,000**	
186,000							
Nonpriority assets:							
Land	60,000	150,000	—	Stockholders' equity:			
Buildings	250,000	300,000	20	Common stock, $1 par	10,000		
Accumulated depreciation	(50,000)			Paid-in capital in			
Equipment	100,000	100,000	5	excess of par	90,000		
Accumulated depreciation	(30,000)			Retained earnings	112,000		
Total nonpriority assets	**330,000**	**550,000**		Total equity		212,000	
Existing goodwill							
Total assets	**402,000**	**620,000**		**Value of net assets**	**212,000**	**434,000**	

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$(116,000)	$(116,000)	$(116,000)
Nonpriority accounts	550,000	550,000	434,000

Price Analysis

Price	$ 500,000	
Assign to priority accounts	(116,000)	full value
Assign to nonpriority accounts	550,000	full value
Goodwill	66,000	
Extraordinary gain	—	

Problem 3-10, Continued

Determination and Distribution of Excess Schedule

Price paid for investment		$500,000			
Less book value interest acquired:					
Common stock	$ 10,000				
Paid-in capital in excess of par	90,000				
Retained earnings	112,000				
Total equity	$212,000				
Interest acquired	× 100%	212,000			
Excess of cost over book value (debit)		$288,000			
Adjustments:					Amortization
Accounts receivable		—			
Inventory		$ (2,000)	1	credit D1	
Land		90,000	—	debit D2	
Accounts payable		—			
Bonds payable		4,000	5	debit D3	$ 800
Buildings		100,000	20	debit D4	5,000
Equipment		30,000	5	debit D5	6,000
Goodwill		66,000		debit D10	
Total adjustments		$288,000			

Problem 3-10, Continued

(2)

Amortization Schedules
Year of Consolidation 3

Account Adjustments	Life	Annual Amount	Current Year	Prior Years	Total	Key
Inventory..... D1	1	$ (2,000)	$ —	$ (2,000)	$ (2,000)	
Subject to amortization:						
Bonds payable.....	5	800	800	1,600	2,400	A3
Buildings.....	20	5,000	5,000	10,000	15,000	A4
Equipment..... A5	5	6,000	6,000	12,000	18,000	
Total amortizations			$11,800	$23,600	$35,400	

Subsidiary Sailair Income Distribution

	Internally generated net income.....	$35,000
	Adjusted income.....	$35,000

Parent Pcraft Income Distribution

Bonds amortization	$ 800	Internally generated net income.....	$165,000
Building depreciation	5,000		
Equipment depreciation	6,000	Controlling share of subsidiary (100% × Sailair adjusted income)	35,000
		Controlling interest	$188,200

Problem 3-10 continues on page 132.

Problem 3-10, Continued

Worksheet
Year of Consolidation 3

	Trial Balance Pcraft	Trial Balance Sailair	Eliminations and Adjustments Dr.		Eliminations and Adjustments Cr.		Consolidated Net Income	NCI	Controlling Retained Earnings	Consol. Balance Sheet
Cash	80,000	140,000	60,000							
Accounts Receivable	90,000	145,000	55,000							
Inventory	120,000	206,000	86,000							
Land	100,000	250,000	60,000	(D2)	90,000					
Investment in Sailair	500,000		(CV)		70,000					
				(EL)	282,000					
				(D)	288,000					
Buildings	800,000	1,200,000	300,000	(D4)	100,000					
Accumulated Depreciation	(220,000)	(315,000)	(80,000)			(A4)	15,000			
Equipment	150,000	280,000	100,000	(D5)	30,000					
Accumulated Depreciation	(90,000)	(180,000)	(72,000)			(A5)	18,000			
Goodwill		66,000	(D6)	66,000						
Current Liabilities	(60,000)	(162,000)	(102,000)							
Bonds Payable		(100,000)								
Discount (premium)		1,600	(D3)	4,000						
				(A3)	2,400					
Common Stock—Sailair		(10,000)	(EL)	10,000						
Paid-In Capital in Excess of Par—Sailair		(90,000)	(EL)	90,000						
Retained Earnings—Sailair		(182,000)	(EL)	182,000						

Common Stock—Pcraft	(100,000)									(100,000)
Paid-In Capital in Excess of Par—Pcraft	(900,000)									(900,000)
Retained Earnings—Pcraft	(315,000)				(CV)	70,000				
				(D1)		2,000				
			(A3–A5)	23,600						(363,400)
Sales	(800,000)		(350,000)					(1,150,000)		
Cost of Goods Sold	450,000		210,000					660,000		
Depreciation Expense—Buildings	30,000		15,000	(A4)	5,000			50,000		
Depreciation Expense—Equipment	15,000		14,000	(A5)	6,000			35,000		
Other Expenses	140,000		68,000					208,000		
Interest Expense		8,000	(A3)	800			8,800			
Dividend Income	(10,000)		(CY2)	10,000						

Problem 3-10, Concluded

Worksheet
Year of Consolidation 3
(Concluded)

	Trial Balance		Eliminations and Adjustments		Consolidated Net Income	NCI	Controlling Retained Earnings	Consol. Balance Sheet
	Pcraft	Sailair	Dr.	Cr.				
Dividends Declared—Sailair		10,000		(CY2)	10,000			
Dividends Declared—Pcraft	20,000							20,000
Totals	0	0	687,400		687,400			
Consolidated Net Income					(188,200)			
NCI Share								
Controlling Share					188,200			(188,200)
NCI								
Controlling Retained Earnings							(531,600)	
(531,600)								
								0

Eliminations and Adjustments:

(CV) Convert to equity method, 100% × ($182,000 – $112,000).
(CY2) Current-year dividend.
(EL) Eliminate controlling interest in Sub equity.
(D) Distribute excess.
(A) Amortize excess.

PROBLEM 3-11

(1) Cost Method Worksheet

Common information:

Ownership interest	70%
Price paid (including direct acquisition costs)	$400,000
Year of consolidation (1 = year of purchase)	1

Acquired Company's Balance Sheet before Purchase

	Book Value	Fair Value	Life		Book Value	Fair Value	Life
Priority assets:							
Accounts receivable	32,000	32,000	1	Current liabilities	90,000	90,000	1
Inventory	40,000	38,000	1	Bonds payable	100,000	96,000	
Total priority assets	**72,000**	**70,000**		**Total liabilities**		**190,000**	
186,000							
Nonpriority assets:							
Land	60,000	150,000	—	Stockholders' equity:			
Buildings	250,000	300,000	20	Common stock, $1 par	10,000		
Accumulated depreciation	(50,000)			Paid-in capital in			
Equipment	100,000	100,000	5	excess of par	90,000		
Accumulated depreciation	(30,000)			Retained earnings	112,000		
Total nonpriority assets	**330,000**	**550,000**		Total equity		212,000	
Existing goodwill							
Total assets	**402,000**	**620,000**		**Value of net assets**	**212,000**	**434,000**	

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$(116,000)	$ (81,200)	$ (81,200)
Nonpriority accounts	550,000	385,000	303,800

Price Analysis

Price	$400,000	
Assign to priority accounts	(81,200)	full value
Assign to nonpriority accounts	385,000	full value
Goodwill	96,200	

Problem 3-11, Continued

Determination and Distribution of Excess Schedule

Price paid for investment			$400,000		
Less book value interest acquired:					
Common stock	$ 10,000				
Paid-in capital in excess of par	90,000				
Retained earnings	112,000				
Total equity	$212,000				
Interest acquired	× 70%		148,400		
Excess of cost over book value (debit)			$251,600		
Adjustments:					Amortization
Accounts receivable		$	—		
Inventory			(1,400)	1 credit D1	
Land			63,000	— debit D2	
Accounts payable			—		
Bonds payable			2,800	5 debit D3	$ 560
Buildings			70,000	20 debit D4	3,500
Equipment			21,000	5 debit D5	4,200
Goodwill			96,200	debit D6	
Total adjustments			$251,600		

Problem 3-11, Continued

(2)

Amortization Schedules
Year of Consolidation 1

Account Adjustments	Life	Annual Amount	Current Year	Prior Years	Total	Key
Inventory..... D1	1	$(1,400)	$ (1,400)		$ (1,400)	
Subject to amortization:						
Bonds payable.....	5	560	560		560	A3
Buildings.....	20	3,500	3,500		3,500	A4
Equipment..... A5	5	4,200	4,200			4,200
Total amortizations			$ 8,260		$ 8,260	

Subsidiary Sailair Income Distribution

Internally generated net income.....	$ 34,000
Adjusted income.....	$ 34,000
NCI share.....	× 30%
NCI.....	$ 10,200

Parent Pcraft Income Distribution

Bonds amortization	$ 560	Internally generated net income.....	$185,000
Building depreciation	3,500	Inventory adjustment.....	1,400
Equipment depreciation	4,200	70% × Sailair adjusted income of $34,000.....	23,800
		Controlling interest	$201,940

Problem 3-11 continues on page 138.

Problem 3-11, Continued

Worksheet
Year of Consolidation 1

	Trial Balance Pcraft	Trial Balance Sailair	Eliminations and Adjustments Dr.		Eliminations and Adjustments Cr.		Consolidated Net Income	NCI	Controlling Retained Earnings	Consol. Balance Sheet
Cash	177,000		31,000							208,000
Accounts Receivable	80,000		35,000							115,000
Inventory	90,000		52,000							142,000
Land	100,000		60,000	(D2)	63,000					223,000
Investment in Sailair	400,000									
				(EL)	148,400					
				(D)	251,600					
Buildings	800,000		250,000	(D4)	70,000					1,120,000
Accumulated Depreciation	(200,000)		(60,000)			(A4)	3,500			(263,500)
Equipment	150,000		100,000	(D5)	21,000					271,000
Accumulated Depreciation	(75,000)		(44,000)			(A5)	4,200			(123,200)
Goodwill			(D6)	96,200						96,200
Current Liabilities	(50,000)		(88,000)							(138,000)
Bonds Payable		(100,000)								(100,000)
Discount (premium)			(D3)	2,800						
				(A3)	560					2,240
Common Stock—Sailair		(10,000)	(EL)	7,000					(3,000)	
Paid-In Capital in Excess of Par—Sailair		(90,000)	(EL)	63,000					(27,000)	
Retained Earnings—Sailair		(112,000)	(EL)	78,400					(33,600)	
Common Stock—Pcraft	(100,000)									(100,000)

Paid-In Capital in Excess of Par—Pcraft	(900,000)									(900,000)
Retained Earnings—Pcraft	(300,000)									(300,000)
Sales	(750,000)		(300,000)					(1,050,000)		
Cost of Goods Sold	400,000		180,000		(D1)	1,400		578,600		
Depreciation Expense—Buildings	30,000		10,000	(A4)	3,500			43,500		
Depreciation Expense—Equipment	15,000		14,000	(A5)	4,200			33,200		
Other Expenses	120,000		54,000					174,000		
Interest Expense		8,000		(A3)	560		8,560			
Dividend Income	(7,000)			(CY2)	7,000					

Problem 3-11, Concluded

Worksheet
Year of Consolidation 1
(Concluded)

	Trial Balance		Eliminations and Adjustments		Consolidated Net Income	NCI	Controlling Retained Earnings	Consol. Balance Sheet
	Pcraft	Sailair	Dr.	Cr.				
Dividends Declared—Sailair		10,000		(CY2)	7,000		3,000	
Dividends Declared—Pcraft	20,000							20,000
Totals	0	0	416,660		416,660			
Consolidated Net Income					(212,140)			
NCI Share					10,200		(10,200)	
Controlling Share					201,940			(201,940)
NCI						(70,800)		(70,800)
Controlling Retained Earnings							(481,940)	(481,940)
								0

Eliminations and Adjustments:
(CY2) Current-year dividend.
(EL) Eliminate controlling interest in Sub equity.
(D) Distribute excess.
(A) Amortize excess.

PROBLEM 3-12

(1) Cost Method Worksheet

Common information:

Ownership interest	70%
Price paid (including direct acquisition costs)	$400,000
Year of consolidation (1 = year of purchase)	3

Acquired Company's Balance Sheet before Purchase

	Book Value	Fair Value	Life		Book Value	Fair Value	Life
Priority assets:							
Accounts receivable	32,000	32,000	1	Current liabilities	90,000	90,000	1
Inventory	40,000	38,000	1	Bonds payable	100,000	96,000	
Total priority assets	**72,000**	**70,000**		**Total liabilities**		**190,000**	
186,000							
Nonpriority assets:							
Land	60,000	150,000	—	Stockholders' equity:			
Buildings	250,000	300,000	20	Common stock, $1 par	10,000		
Accumulated depreciation	(50,000)			Paid-in capital in			
Equipment	100,000	100,000	5	excess of par	90,000		
Accumulated depreciation	(30,000)			Retained earnings	112,000		
Total nonpriority assets	**330,000**	**550,000**		Total equity		212,000	
Existing goodwill							
Total assets	**402,000**	**620,000**		**Value of net assets**	**212,000**	**434,000**	

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$(116,000)	$ (81,200)	$ (81,200)
Nonpriority accounts	550,000	385,000	303,800

Price Analysis

Price	$400,000	
Assign to priority accounts	(81,200)	full value
Assign to nonpriority accounts	385,000	full value
Goodwill	96,200	

Problem 3-12, Continued

Determination and Distribution of Excess Schedule

Price paid for investment			$400,000		
Less book value interest acquired:					
Common stock	$ 10,000				
Paid-in capital in excess of par	90,000				
Retained earnings	112,000				
Total equity	$212,000				
Interest acquired	× 70%		148,400		
Excess of cost over book value (debit)			$251,600		
Adjustments:					Amortization
Accounts receivable		$	—		
Inventory			(1,400)	1 credit D1	
Land			63,000	— debit D2	
Accounts payable			—		
Bonds payable			2,800	5 debit D3	$ 560
Buildings			70,000	20 debit D4	3,500
Equipment			21,000	5 debit D5	4,200
Goodwill			96,200	debit D10	
Total adjustments			$251,600		

Problem 3-12, Continued

(2)

Amortization Schedules
Year of Consolidation 3

Account Adjustments To Be Amortized	Life	Annual Amount	Current Year	Prior Years	Total	Key
Inventory..... D1	1	$(1,400)	$ —	$ (1,400)	$ (1,400)	
Subject to amortization:						
Bonds payable.....	5	560	560	1,120	1,680	A3
Buildings.....	20	3,500	3,500	7,000	10,500	A4
Equipment..... A5	5	4,200	4,200	8,400	12,600	
Total amortizations.....			$ 8,260	$16,520	$24,780	

Subsidiary Sailair Income Distribution

	Internally generated net income.....	$35,000
	Adjusted income.....	$35,000
	NCI share.....	× 30%
	NCI.....	$10,500

Parent Pcraft Income Distribution

Bonds amortization.....	$ 560	Internally generated net income.....	$165,000
Buildings depreciation.....	3,500	70% × Sailair adjusted income of $35,000.....	24,500
Equipment depreciation.....	4,200		
		Controlling interest.....	$181,240

Problem 3-12 continues on page 144.

Problem 3-12, Continued

Worksheet
Year of Consolidation 3

	Trial Balance Pcraft	Trial Balance Sailair	Eliminations and Adjustments Dr.		Eliminations and Adjustments Cr.		Consolidated Net Income	NCI	Controlling Retained Earnings	Consol. Balance Sheet
Cash	177,000		60,000							237,000
Accounts Receivable	90,000		55,000							145,000
Inventory	120,000		86,000							206,000
Land	100,000		60,000	(D2)	63,000					223,000
Investment in Sailair	400,000		(CV)		49,000					
				(EL)	197,400					
				(D)	251,600					
Buildings	800,000		300,000	(D4)	70,000					1,170,000
Accumulated Depreciation	(220,000)		(80,000)			(A4)	10,500			(310,500)
Equipment	150,000		100,000	(D5)	21,000					271,000
Accumulated Depreciation	(90,000)		(72,000)			(A5)	12,600			(174,600)
Goodwill			(D6)	96,200						96,200
Current Liabilities	(60,000)		(102,000)							(162,000)
Bonds Payable		(100,000)								(100,000)
Discount (premium)			(D3)	2,800						
				(A3)	1,680					1,120
Common Stock—Sailair		(10,000)	(EL)	7,000					(3,000)	
Paid-In Capital in Excess of Par—Sailair		(90,000)	(EL)	63,000						(27,000)
Retained Earnings—Sailair		(182,000)	(EL)	127,400						(54,600)

Common Stock—Pcraft	(100,000)									(100,000)
Paid-In Capital in Excess of Par—Pcraft	(900,000)									(900,000)
Retained Earnings—Pcraft	(315,000)				(CV)	49,000				
				(D1)		1,400				
			(A3–A5)	16,520						(348,880)
Sales	(800,000)		(350,000)					(1,150,000)		
Cost of Goods Sold	450,000		210,000					660,000		
Depreciation Expense—Buildings	30,000		15,000	(A4)	3,500			48,500		
Depreciation Expense—Equipment	15,000		14,000	(A5)	4,200			33,200		
Other Expenses	140,000		68,000					208,000		
Interest Expense		8,000	(A3)	560			8,560			
Dividend Income	(7,000)		(CY2)	7,000						

Problem 3-12, Concluded

Worksheet
Year of Consolidation 3
(Concluded)

	Trial Balance		Eliminations and Adjustments		Consolidated Net Income	NCI	Controlling Retained Earnings	Consol. Balance Sheet
	Pcraft	Sailair	Dr.	Cr.				
Dividends Declared—Sailair		10,000		(CY2)	7,000		3,000	
Dividends Declared—Pcraft	20,000							20,000
Totals	0	0	531,180		531,180			
Consolidated Net Income					(191,740)			
NCI Share					10,500		(10,500)	
Controlling Share					181,240			(181,240)
NCI						(92,100)		
(92,100)								
Controlling Retained Earnings							(510,120)	
(510,120)								
								0

Eliminations and Adjustments:

(CV) Convert to equity method, 70% × ($182,000 – $112,000).
(CY2) Current-year dividend.
(EL) Eliminate controlling interest in Sub equity.
(D) Distribute excess.
(A) Amortize excess.

PROBLEM 3-13

(1) Sophisticated Equity Method Worksheet

Common information:

Ownership interest	100%
Price paid (including direct acquisition costs)	$500,000
Year of consolidation (1 = year of purchase)	3

Acquired Company's Balance Sheet before Purchase

	Book Value	Fair Value	Life		Book Value	Fair Value	Life
Priority assets:							
Accounts receivable	32,000	32,000	1	Current liabilities	90,000	90,000	1
Inventory	40,000	38,000	1	Bonds payable	100,000	96,000	
Total priority assets	**72,000**	**70,000**		**Total liabilities**		**190,000**	
186,000							
Nonpriority assets:							
Land	60,000	150,000	—	Stockholders' equity:			
Buildings	250,000	300,000	20	Common stock, $1 par	10,000		
Accumulated depreciation	(50,000)			Paid-in capital in			
Equipment	100,000	100,000	5	excess of par	90,000		
Accumulated depreciation	(30,000)			Retained earnings	112,000		
Total nonpriority assets	**330,000**	**550,000**		Total equity		212,000	
Existing goodwill							
Total assets	**402,000**	**620,000**		**Value of net assets**	**212,000**	**434,000**	

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$(116,000)	$(116,000)	$(116,000)
Nonpriority accounts	550,000	550,000	434,000

Price Analysis

Price	$ 500,000	
Assign to priority accounts	(116,000)	full value
Assign to nonpriority accounts	550,000	full value
Goodwill	66,000	

Problem 3-13, Continued

Determination and Distribution of Excess Schedule

Price paid for investment		$500,000			
Less book value interest acquired:					
Common stock	$ 10,000				
Paid-in capital in excess of par	90,000				
Retained earnings	112,000				
Total equity	$212,000				
Interest acquired	× 100%	212,000			
Excess of cost over book value (debit)		$288,000			
Adjustments:					Amortization
Accounts receivable		$ —			
Inventory		(2,000)	1	credit D1	
Land		90,000	—	debit D2	
Accounts payable		—			
Bonds payable		4,000	5	debit D3	$ 800
Buildings		100,000	20	debit D4	5,000
Equipment		30,000	5	debit D5	6,000
Goodwill		66,000		debit D6	
Total adjustments		$288,000			

Problem 3-13, Continued

(2)

Amortization Schedules
Year of Consolidation 3

Account Adjustments	Life	Annual Amount	Current Year	Prior Years	Total	Key
Inventory..... D1	1	$(2,000)	$ —	$ (2,000)	$ (2,000)	
Subject to amortization:						
Bonds payable.....	5	800	800	1,600	2,400	A3
Buildings.....	20	5,000	5,000	10,000	15,000	A4
Equipment..... A5	5	6,000	6,000	12,000	18,000	
Total amortizations			$11,800	$23,600	$35,400	

Subsidiary Sailair Income Distribution

	Internally generated net income.....	$35,000
	Adjusted income.....	$35,000

Parent Pcraft Income Distribution

Bonds amortization	$ 800	Internally generated net income.....	$165,000
Buildings depreciation.....	5,000		
Equipment depreciation	6,000	Controlling share of subsidiary (100% × Sailair adjusted income)	35,000
		Controlling interest	$188,200

Problem 3-13 continues on page 150.

Problem 3-13, Continued

Worksheet
Year of Consolidation 3

	Trial Balance Pcraft	Trial Balance Sailair	Eliminations and Adjustments Dr.	Eliminations and Adjustments Cr.	Consolidated Net Income	NCI	Controlling Retained Earnings	Consol. Balance Sheet
Cash	80,000		60,000					140,000
Accounts Receivable	90,000		55,000					145,000
Inventory	120,000		86,000					206,000
Land	100,000		60,000 (D2)	90,000				250,000
Investment in Sailair	561,600			(CY1)	23,200			
			(CY2) 10,000					
				(EL) 282,000				
				(D) 266,400				
Buildings	800,000		300,000 (D4)	100,000				1,200,000
Accumulated Depreciation	(220,000)		(80,000)	(D4)	10,000			(315,000)
				(A4) 5,000				
Equipment	150,000		100,000 (D5)	30,000				280,000
Accumulated Depreciation	(90,000)		(72,000)	(D5)	12,000			(180,000)
				(A5) 6,000				
Goodwill			(D6) 66,000					66,000
Current Liabilities	(60,000)		(102,000)					(162,000)
Bonds Payable		(100,000)						(100,000)
Discount (premium)			(D3) 4,000	(D3)	1,600			
				(A3) 800				1,600
Common Stock—Sailair		(10,000)	(EL) 10,000					
Paid-In Capital in Excess of Par—Sailair		(90,000)	(EL) 90,000					

Retained Earnings—Sailair		(182,000)	(EL)	182,000						
Common Stock—Pcraft	(100,000)									(100,000)
Paid-In Capital in Excess of Par—Pcraft	(900,000)									(900,000)
Retained Earnings—Pcraft	(363,400)									
									(363,400)	
Sales	(800,000)	(350,000)						(1,150,000)		
Cost of Goods Sold	450,000	210,000						660,000		
Depreciation Expense—Buildings	30,000	15,000	(A4)	5,000				50,000		
Depreciation Expense—Equipment	15,000	14,000	(A5)	6,000				35,000		
Other Expenses	140,000	68,000						208,000		
Interest Expense		8,000	(A3)	800			8,800			
Subsidiary Income	(23,200)		(CY1)	23,200						

Problem 3-13, Concluded

Worksheet
Year of Consolidation 3
(Concluded)

	Trial Balance		Eliminations and Adjustments		Consolidated Net Income	NCI	Controlling Retained Earnings	Consol. Balance Sheet
	Pcraft	Sailair	Dr.	Cr.				
Dividends Declared—Sailair		10,000		(CY2)	10,000			
Dividends Declared—Pcraft	20,000							20,000
Totals	0	0	617,000		617,000			
Consolidated Net Income					(188,200)			
NCI Share								
Controlling Share					188,200			(188,200)
NCI								
Controlling Retained Earnings							(531,600)	
(531,600)								
								0

Eliminations and Adjustments:

(CY1) Eliminate current-year subsidiary income net of amortizations of excess of $11,800.
(CY2) Current-year dividend.
(EL) Eliminate controlling interest in Sub equity.
(D) Distribute excess, net of prior two years' amortizations of excess.
(A) Amortize excess for current year only.

PROBLEM 3-14

(1) Equity Method Worksheet

Common information:

Ownership interest	100%
Price paid (including direct acquisition costs)	$800,000
Year of consolidation (1 = year of purchase)	1

Acquired Company's Balance Sheet before Purchase

	Book Value	Fair Value	Life		Book Value	Fair Value	Life
Priority assets:							
Accounts receivable	40,000	40,000	1	Current liabilities	30,000	30,000	1
Inventory	60,000	65,000	1	Mortgage payable		200,000	205,000 5
Total priority assets	**100,000**	**105,000**		**Total liabilities**			**230,000**
235,000							
Nonpriority assets:							
Land	50,000	100,000	—				
Buildings	400,000	500,000	20				
Accumulated depreciation	(50,000)			Stockholders' equity:			
Equipment	150,000	100,000	5	Common stock, $1 par	100,000		
Accumulated depreciation	(30,000)			Paid-in capital in			
Patent (net)	40,000	50,000	5	excess of par			200,000
Production backlog		10,000	2	Retained earnings	180,000		
Total nonpriority assets	**560,000**	**760,000**		Total equity			480,000
Existing goodwill	50,000						
Total assets	**710,000**	**865,000**		**Value of net assets**	**480,000**	**630,000**	

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$(130,000)	$(130,000)	$(130,000)
Nonpriority accounts	760,000	760,000	630,000

Price Analysis

Price	$ 800,000	
Assign to priority accounts	(130,000)	full value
Assign to nonpriority accounts	760,000	full value
Goodwill	170,000	

Problem 3-14, Continued

Determination and Distribution of Excess Schedule

Price paid for investment		$800,000			
Less book value interest acquired:					
Common stock	$100,000				
Paid-in capital in excess of par	200,000				
Retained earnings	180,000				
Total equity	$480,000				
Interest acquired	× 100%	480,000			
Excess of cost over book value (debit)		$320,000			
Adjustments:					Amortization
Accounts receivable		$ —			
Inventory		5,000	1	debit D1	
Land		50,000	—	debit D2	
Accounts payable		—			
Mortgage payable		(5,000)	5	credit D3	$(1,000)
Buildings		150,000	20	debit D4	7,500
Equipment		(20,000)	5	credit D5	(4,000)
Patent (net)		10,000	5	debit D6	2,000
Production backlog		10,000	2	debit D7	5,000
Goodwill		120,000		debit D8	
Total adjustments		$320,000			

Problem 3-14, Continued

(2)

Amortization Schedules
Year of Consolidation 1

Account Adjustments	Life	Annual Amount	Current Year	Prior Years	Total	Key
Inventory.....	1	$ 5,000	$ 5,000		$ 5,000	
D1						
Subject to amortization:						
Mortgage payable.....	5	(1,000)	(1,000)		(1,000)	A3
Buildings.....	20	7,500	7,500		7,500	A4
Equipment.....	5	(4,000)		(4,000)		(4,000)
A5						
Patent (net)	5	2,000	2,000			2,000
A6						
Production backlog.....	2	5,000	5,000			5,000
A7						
Total amortizations			$ 9,500		$ 9,500	

Subsidiary HD Air Income Distribution

Internally generated net income.....	$47,500
Adjusted income.....	$47,500

Parent Fast Cool Income Distribution

Inventory adjustment	$5,000	Internally generated net income.....	$253,000
Buildings depreciation.....	7,500	Controlling share of subsidiary (100% × HD Air adjusted income)	47,500
Patent amortization.....	2,000	Mortgage amortization.....	1,000
Production backlog adjustment.....	5,000	Equipment depreciation.....	4,000
		Controlling interest	$286,000

Problem 3-14 continues on page 156.

Problem 3-14, Continued

Worksheet
Year of Consolidation 1

	Trial Balance		Eliminations and Adjustments				Consolidated Net		Controlling Retained	Consol. Balance
	Fast Cool	HD Air	Dr.		Cr.		Income	NCI	Earnings	Sheet
Cash	147,000	184,000	37,000							
Accounts Receivable	70,000	170,000	100,000							
Inventory	150,000	210,000	60,000							
Land	60,000	160,000	50,000	(D2)	50,000					
Investment in HD Air	837,500				(CY1)		47,500			
			(CY2	10,000						
				(EL)	480,000					
				(D)	320,000					
Buildings	1,200,000	1,750,000	400,000	(D4)	150,000					
Accumulated Depreciation	(176,000)	(251,000)	(67,500)			(A4)	7,500			
Equipment	140,000	270,000	150,000			(D5)	20,000			
Accumulated Depreciation	(68,000)	(118,000)	(54,000)	(A5)	4,000					
Patent (net)		32,000	(D6)	10,000						
				(A6)	2,000					
Production Backlog			(D7)	10,000						
				(A7)	5,000					
Goodwill		50,000	(D8)	120,000						
Current Liabilities	(80,000)	(120,000)	(40,000)							
Mortgage Payable		(200,000)								
Discount (premium)				(D3)	5,000					

			(A3)		1,000							
	(4,000)											
Common Stock—HD Air		(100,000)	(EL)		100,000							
Paid-In Capital in Excess of Par—HD Air		(200,000)	(EL)		200,000							
Retained Earnings—HD Air		(180,000)	(EL)		180,000							
Common Stock—Fast Cool	(100,000)											(100,000)
Paid-In Capital in Excess of Par—Fast Cool	(1,500,000)											(1,500,000)
Retained Earnings—Fast Cool	(400,000)											
											(400,000)	
Sales	(700,000)		(400,000)							(1,100,000)		
Cost of Goods Sold	380,000		210,000	(D1)	5,000					595,000		
Depreciation Expense—Buildings	10,000		17,500	(A4)	7,500					35,000		
Depreciation Expense—Equipment	7,000		24,000			(A5)	4,000				27,000	
Other Expenses	50,000		85,000	(A6)	2,000							
			(A7)		5,000					142,000		

Problem 3-14, Concluded

Worksheet
Year of Consolidation 1
(Concluded)

	Trial Balance		Eliminations and Adjustments		Consolidated Net Income	NCI	Controlling Retained Earnings	Consol. Balance Sheet
	Fast Cool	HD Air	Dr.	Cr.				
Interest Expense		16,000		(A3)	1,000	15,000		
			(D11)					
Subsidiary Income	(47,500)		(CY1) 47,500					
Dividends Declared—HD Air		10,000		(CY2)	10,000			
Dividends Declared—Fast Cool	20,000							20,000
Totals	0	0	902,000		902,000			
Consolidated Net Income					(286,000)			
NCI Share								
Controlling Share					286,000			(286,000)
NCI								
Controlling Retained Earnings							(666,000)	
(666,000)								
								0

Eliminations and Adjustments:

(CY1) Current-year subsidiary income.
(CY2) Current-year dividend.
(EL) Eliminate controlling interest in Sub equity.
(D) Distribute excess.
(A) Amortize excess.

PROBLEM 3-15

(1) Equity Method Worksheet

Common information:

Ownership interest	100%
Price paid (including direct acquisition costs)	$800,000
Year of consolidation (1 = year of purchase)	2

Acquired Company's Balance Sheet before Purchase

	Book Value	Fair Value	Life		Book Value	Fair Value	Life
Priority assets:							
Accounts receivable	40,000	40,000	1	Current liabilities	30,000	30,000	1
Inventory	60,000	65,000	1	Mortgage payable	200,000	205,000	5
Total priority assets	**100,000**	**105,000**		**Total liabilities**		**230,000**	
235,000							
Nonpriority assets:							
Land	50,000	100,000	—				
Buildings	400,000	500,000	20				
Accumulated depreciation	(50,000)			Stockholders' equity:			
Equipment	150,000	100,000	5	Common stock, $1 par	100,000		
Accumulated depreciation	(30,000)			Paid-in capital in			
Patent (net)	40,000	50,000	5	excess of par		200,000	
Production backlog		10,000	2	Retained earnings	180,000		
Total nonpriority assets	**560,000**	**760,000**		Total equity		480,000	
Existing goodwill	50,000						
Total assets	**710,000**	**865,000**		**Value of net assets**	**480,000**	**630,000**	

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$(130,000)	$(130,000)	$(130,000)
Nonpriority accounts	760,000	760,000	630,000

Price Analysis

Price	$ 800,000	
Assign to priority accounts	(130,000)	full value
Assign to nonpriority accounts	760,000	full value
Goodwill	170,000	

Problem 3-15, Continued

Determination and Distribution of Excess Schedule

Price paid for investment		$800,000			
Less book value interest acquired:					
Common stock	$100,000				
Paid-in capital in excess of par	200,000				
Retained earnings	180,000				
Total equity	$480,000				
Interest acquired	× 100%	480,000			
Excess of cost over book value (debit)		$320,000			
Adjustments:					Amortization
Accounts receivable		$ —			
Inventory		5,000	1	debit D1	
Land		50,000	—	debit D2	
Accounts payable		—			
Mortgage payable		(5,000)	5	credit D3	$(1,000)
Buildings		150,000	20	debit D4	7,500
Equipment		(20,000)	5	credit D5	(4,000)
Patent (net)		10,000	5	debit D6	2,000
Production backlog		10,000	2	debit D7	5,000
Goodwill		120,000		debit D8	
Total adjustments		$320,000			

Problem 3-15, Continued

(2)

Amortization Schedules
Year of Consolidation 2

Account Adjustments	Life	Annual Amount	Current Year	Prior Years	Total	Key
Inventory..... D1	1	$ 5,000		$ 5,000	$ 5,000	
Subject to amortization:						
Mortgage payable.....	5	(1,000)	$(1,000)	(1,000)	(2,000)	A3
Buildings.....	20	7,500	7,500	7,500	15,000	A4
Equipment..... A5	5	(4,000)		(4,000)	(4,000)	(8,000)
Patent (net) A6	5	2,000	2,000		2,000	4,000
Production backlog..... A7	2	5,000	5,000		5,000	10,000
Total amortizations			$ 9,500	$ 9,500	$ 19,000	

Subsidiary HD Air Income Distribution

Internally generated net income.....	$67,500
Adjusted income.....	$67,500

Parent Fast Cool Income Distribution

Buildings depreciation.....	$7,500	Internally generated net income.....	$253,000
Patent amortization.....	2,000	Controlling share of subsidiary (100% × HD Air adjusted income)	67,500
Production backlog adjustment.....	5,000	Mortgage amortization.....	1,000
		Equipment depreciation.....	4,000
		Controlling interest	$311,000

Problem 3-15 continues on page 162.

Problem 3-15, Continued

Worksheet
Year of Consolidation 2

	Trial Balance		Eliminations and Adjustments				Consolidated Net		Controlling Retained	Consol. Balance
	Fast Cool	HD Air		Dr.		Cr.	Income	NCI	Earnings	Sheet
Cash	396,000	495,000		99,000						
Accounts Receivable	200,000	320,000		120,000						
Inventory	120,000	215,000		95,000						
Land	60,000	160,000		50,000	(D2)	50,000				
Investment in HD Air	895,000					(CY1)	67,500			
			(CY2)	10,000						
					(EL)	517,500				
					(D)	320,000				
Buildings	1,200,000	1,750,000		400,000	(D4)	150,000				
Accumulated Depreciation	(200,000)	(300,000)		(85,000)			(A4)	15,000		
Equipment	140,000	270,000		150,000			(D5)	20,000		
Accumulated Depreciation	(80,000)	(150,000)		(78,000)	(A5)	8,000				
Patent (net)		24,000	(D6)			10,000				
					(A6)	4,000				
		30,000								
Production Backlog			(D7)	10,000						
					(A7)	10,000				
Goodwill		50,000	(D8)			120,000				
		170,000								
Current Liabilities	(150,000)	(200,000)		(50,000)						
Mortgage Payable		(200,000)								
		(200,000)								
Discount (premium)					(D3)	5,000				
			(A3)	2,000						
		(3,000)								

Common Stock—HD Air		(100,000)	(EL)		100,000					
Paid-In Capital in Excess of Par—HD Air		(200,000)	(EL)		200,000					
Retained Earnings—HD Air		(217,500)	(EL)		217,500					
Common Stock—Fast Cool	(100,000)									(100,000)
Paid-In Capital in Excess of Par—Fast Cool	(1,500,000)									(1,500,000)
Retained Earnings—Fast Cool	(680,500)									
			(D1)	5,000						
			(A3–A7)	9,500						(666,000)
Sales	(700,000)		(500,000)					(1,200,000)		
Cost of Goods Sold	380,000		260,000					640,000		
Depreciation Expense—Buildings	10,000		17,500	(A4)	7,500			35,000		
Depreciation Expense—Equipment	7,000		24,000			(A5)	4,000		27,000	

Problem 3-15, Concluded

Worksheet
Year of Consolidation 2
(Concluded)

	Trial Balance		Eliminations and Adjustments				Consolidated Net Income	NCI	Controlling Retained Earnings	Consol. Balance Sheet
	Fast Cool	HD Air		Dr.		Cr.				
Other Expenses	50,000			115,000	(A6)	2,000				
			(A7)		5,000			172,000		
Interest Expense		16,000				(A3)	1,000	15,000		
Subsidiary Income	(67,500)		(CY1)	67,500						
Dividends Declared—HD Air		10,000				(CY2)	10,000			
Dividends Declared—Fast Cool	20,000									20,000
Totals	0	0		974,000			974,000			
Consolidated Net Income							(311,000)			
NCI Share										
Controlling Share							311,000			(311,000)
NCI										
Controlling Retained Earnings									(957,000)	(957,000)
										0

Eliminations and Adjustments:

(CY1) Current-year subsidiary income.
(CY2) Current-year dividend.
(EL) Eliminate controlling interest in Sub equity.
(D) Distribute excess.
(A) Amortize excess.

PROBLEM 3-16

(1) Equity Method Worksheet

Common information:

Ownership interest	100%
Price paid (including direct acquisition costs)	$500,000
Year of consolidation (1 = year of purchase)	2

Acquired Company's Balance Sheet before Purchase

	Book Value	Fair Value	Life		Book Value	Fair Value	Life
Priority assets:							
Accounts receivable	40,000	40,000	1	Current liabilities	30,000	30,000	1
Inventory	60,000	65,000	1	Mortgage payable	200,000	205,000	5
Total priority assets	**100,000**	**105,000**		**Total liabilities**		**230,000**	
235,000							
Nonpriority assets:							
Land	50,000	100,000	—				
Buildings	400,000	500,000	20				
Accumulated depreciation	(50,000)			Stockholders' equity:			
Equipment	150,000	100,000	5	Common stock, $1 par	100,000		
Accumulated depreciation	(30,000)			Paid-in capital in			
Patent (net)	40,000	50,000	5	excess of par		200,000	
Production backlog		10,000	2	Retained earnings	180,000		
Total nonpriority assets	**560,000**	**760,000**		Total equity		480,000	
Existing goodwill	50,000						
Total assets	**710,000**	**865,000**		**Value of net assets**	**480,000**	**630,000**	

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$(130,000)	$(130,000)	$(130,000)
Nonpriority accounts	760,000	760,000	630,000

Price Analysis

Price	$ 500,000	
Assign to priority accounts	(130,000)	full value
Assign to nonpriority accounts	630,000	allocate
Goodwill	—	

Problem 3-16, Continued

Determination and Distribution of Excess Schedule

Price paid for investment		$500,000			
Less book value interest acquired:					
Common stock	$100,000				
Paid-in capital in excess of par	200,000				
Retained earnings	180,000				
Total equity	$480,000				
Interest acquired	× 100%	480,000			
Excess of cost over book value (debit)		$ 20,000			
Adjustments:					Amortization
Accounts receivable		$ —			
Inventory		5,000	1	debit D1	
Land		32,895	—	debit D2	
Accounts payable		—			
Mortgage payable		(5,000)	5	credit D3	$(1,000)
Buildings		64,474	20	debit D4	3,224
Equipment		(37,105)	5	credit D5	(7,421)
Patent (net)		1,447	5	debit D6	289
Production backlog		8,289	2	debit D7	4,145**
Goodwill*		(50,000)		credit D8	
Total adjustments		$ 20,000			

*Reduce existing goodwill by $50,000.
**Year 1 $4,145; Year 2 $4,144.

Problem 3-16, Continued

(2)

Amortization Schedules
Year of Consolidation 2

Account Adjustments	Life	Annual Amount	Current Year	Prior Years	Total	Key
Inventory..... D1	1	$ 5,000		$ 5,000	$ 5,000	
Subject to amortization:						
Mortgage payable.....	5	(1,000)	$(1,000)	(1,000)	(2,000)	A3
Buildings.....	20	3,224	3,224	3,224	6,448	A4
Equipment..... A5	5	(7,421)	(7,421)	(7,421)	(14,842)	
Patent (net)	5	289	289	289	578	A6
Production backlog..... A7	2	4,145	4,144	4,145	8,289	
Total amortizations			$ (764)	$ (763)	$ (1,527)	

Subsidiary HD Air Income Distribution

	Internally generated net income.....	$67,500
	Adjusted income.....	$67,500

Parent Fast Cool Income Distribution

Buildings depreciation.....	$3,224	Internally generated net income.....	$253,000
Patent amortization.....	289	Controlling share of subsidiary (100% × HD Air adjusted income)	67,500
Production backlog adjustment.....	4,144	Mortgage amortization.....	1,000
		Equipment depreciation.....	7,421
		Controlling interest	$321,264

Problem 3-16 continues on page 168.

Problem 3-16, Continued

Worksheet
Year of Consolidation 2

	Trial Balance		Eliminations and Adjustments				Consolidated Net		Controlling Retained	Consol. Balance
	Fast Cool	HD Air		Dr.		Cr.	Income	NCI	Earnings	Sheet
Cash	396,000	495,000		99,000						
Accounts Receivable	200,000	320,000		120,000						
Inventory	120,000	215,000		95,000						
Land	60,000	142,895		50,000	(D2)	32,895				
Investment in HD Air	595,000					(CY1)	67,500			
			(CY2)	10,000						
					(EL)	517,500				
					(D)	20,000				
Buildings	1,200,000	1,664,474		400,000	(D4)	64,474				
Accumulated Depreciation	(200,000)	291,448		(85,000)		(A4)	6,448			
Equipment	140,000	252,895		150,000		(D5)	37,105			
Accumulated Depreciation	(80,000)	(143,158)		(78,000)	(A5)	14,842				
Patent (net)		24,000	(D6)		1,447					
					(A6)	578				24,869
Production Backlog			(D7)	8,289						
					(A7)	8,289				
Goodwill		50,000				(D8)	50,000			
Current Liabilities	(150,000)	(200,000)		(50,000)						
Mortgage Payable		(200,000)								
Discount (premium)					(D3)	5,000				
			(A3)	2,000						
		(3,000)								
Common Stock—HD Air		(100,000)	(EL)		100,000					

Paid-In Capital in Excess of Par—HD Air		(200,000)	(EL)	200,000						
Retained Earnings—HD Air		(217,500)	(EL)	217,500						
Common Stock—Fast Cool	(85,000)									(85,000)
Paid-In Capital in Excess of Par—Fast Cool	(1,215,000)									(1,215,000)
Retained Earnings—Fast Cool	(680,500)									
			(D1)	5,000						
				(A3–A7)	763				(676,263)	
Sales	(700,000)	(500,000)						(1,200,000)		
Cost of Goods Sold	380,000	260,000						640,000		
Depreciation Expense—Buildings	10,000	17,500	(A4)	3,224				30,724		
Depreciation Expense—Equipment	7,000	24,000			(A5)	7,421			23,579	

Problem 3-16, Concluded

Worksheet
Year of Consolidation 2
(Concluded)

	Trial Balance		Eliminations and Adjustments				Consolidated Net Income	NCI	Controlling Retained Earnings	Consol. Balance Sheet
	Fast Cool	HD Air		Dr.		Cr.				
Other Expenses	50,000			115,000	(A6)	289				
			(A7)		4,144			169,433		
Interest Expense		16,000				(A3)	1,000	15,000		
Subsidiary Income	(67,500)		(CY1)	67,500						
Dividends Declared—HD Air		10,000				(CY2)	10,000			
Dividends Declared—Fast Cool	20,000									20,000
Totals	0	0		731,604			731,604			
Consolidated Net Income							(321,264)			
NCI Share										
Controlling Share							321,264			(321,264)
NCI										
Controlling Retained Earnings									(977,527)	(977,527)
										0

Eliminations and Adjustments:
(CY1) Current-year subsidiary income.
(CY2) Current-year dividend.
(EL) Eliminate controlling interest in Sub equity.
(D) Distribute excess.
(A) Amortize excess.

PROBLEM 3-17

(1) Equity Method Worksheet

Common information:

Ownership interest	80%
Price paid (including direct acquisition costs)	$700,000
Year of consolidation (1 = year of purchase)	1

Acquired Company's Balance Sheet before Purchase

	Book Value	Fair Value	Life		Book Value	Fair Value	Life
Priority assets:							
Accounts receivable	40,000	40,000	1	Current liabilities	30,000	30,000	1
Inventory	60,000	65,000	1	Mortgage payable	200,000	205,000	5
Total priority assets	**100,000**	**105,000**		**Total liabilities**		**230,000**	
235,000							
Nonpriority assets:							
Land	50,000	100,000	—				
Buildings	400,000	500,000	20				
Accumulated depreciation	(50,000)			Stockholders' equity:			
Equipment	150,000	100,000	5	Common stock, $1 par	100,000		
Accumulated depreciation	(30,000)			Paid-in capital in			
Patent (net)	40,000	50,000	5	excess of par		200,000	
Production backlog		10,000	2	Retained earnings	180,000		
Total nonpriority assets	**560,000**	**760,000**		Total equity		480,000	
Existing goodwill	50,000						
Total assets	**710,000**	**865,000**		**Value of net assets**	**480,000**	**630,000**	

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$(130,000)	$(104,000)	$(104,000)
Nonpriority accounts	760,000	608,000	504,000

Price Analysis

Price	$ 700,000	
Assign to priority accounts	(104,000)	full value
Assign to nonpriority accounts	608,000	full value
Goodwill	196,000	

Problem 3-17, Continued

Determination and Distribution of Excess Schedule

Price paid for investment		$700,000			
Less book value interest acquired:					
Common stock	$100,000				
Paid-in capital in excess of par	200,000				
Retained earnings	180,000				
Total equity	$480,000				
Interest acquired	× 80%	384,000			
Excess of cost over book value (debit)		$316,000			
Adjustments:					Amortization
Accounts receivable		$ —			
Inventory		4,000	1	debit D1	
Land		40,000	—	debit D2	
Accounts payable		—			
Mortgage payable		(4,000)	5	credit D3	$ (800)
Buildings		120,000	20	debit D4	6,000
Equipment		(16,000)	5	credit D5	(3,200)
Patent (net)		8,000	5	debit D6	1,600
Production backlog		8,000	2	debit D7	4,000
Goodwill		156,000		debit D8	
Total adjustments		$316,000			

Problem 3-17, Continued

(2) Amortization Schedules
Year of Consolidation 1

Account Adjustments	Life	Annual Amount	Current Year	Prior Years	Total	Key
Inventory.....	1	$ 4,000	$ 4,000		$ 4,000	
D1						
Subject to amortization:						
Mortgage payable.....	5	(800)	(800)		(800)	A3
Buildings.....	20	6,000	6,000		6,000	A4
Equipment.....	5	(3,200)		(3,200)		(3,200)
A5						
Patent (net)	5	1,600	1,600			1,600
A6						
Production backlog.....	2	4,000	4,000			4,000
A7						
Total amortizations			$ 7,600		$ 7,600	

Subsidiary HD Air Income Distribution

Internally generated net income.....	$47,500
Adjusted income.....	$47,500
NCI share.....	× 20%
NCI.....	$ 9,500

Parent Fast Cool Income Distribution

Inventory adjustment	$4,000	Internally generated net income.....	$253,000
Buildings depreciation.....	6,000	80% × HD Air adjusted income of $47,500.....	38,000
Patent amortization.....	1,600	Mortgage amortization.....	800
Production backlog adjustment.....	4000	Equipment depreciation.....	3,200
		Controlling interest	$279,400

Problem 3-17 continues on page 174.

Problem 3-17, Continued

Worksheet
Year of Consolidation 1

	Trial Balance		Eliminations and Adjustments				Consolidated Net		Controlling Retained	Consol. Balance
	Fast Cool	HD Air	Dr.		Cr.		Income	NCI	Earnings	Sheet
Cash	145,000	182,000	37,000							
Accounts Receivable	70,000	170,000	100,000							
Inventory	150,000	210,000	60,000							
Land	60,000	150,000	50,000	(D2)	40,000					
Investment in HD Air	730,000				(CY1)		38,000			
			(CY2)	8,000						
				(EL)	384,000					
				(D)	316,000					
Buildings	1,200,000	1,720,000	400,000	(D4)	120,000					
Accumulated Depreciation	(176,000)	(249,500)	(67,500)			(A4)	6,000			
Equipment	140,000	274,000	150,000			(D5)	16,000			
Accumulated Depreciation	(68,000)	(118,800)	(54,000)	(A5)	3,200					
Patent (net)		32,000	(D6)	8,000						
				(A6)	1,600					
		38,400								
Production Backlog			(D7)	8,000						
				(A7)	4,000					
		4,000								
Goodwill		50,000	(D8)	156,000						
		206,000								
Current Liabilities	(80,000)	(120,000)	(40,000)							
Mortgage Payable		(200,000)								
		(200,000)								
Discount (premium)				(D3)	4,000					
			(A3)	800						(3,200)

Common Stock—HD Air		(100,000)	(EL)	80,000				(20,000)		
Paid-In Capital in Excess of Par—HD Air		(200,000)	(EL)	160,000				(40,000)		
Retained Earnings—HD Air		(180,000)	(EL)	144,000				(36,000)		
Common Stock—Fast Cool	(95,000)									(95,000)
Paid-In Capital in Excess of Par—Fast Cool	(1,405,000)									(1,405,000)
Retained Earnings—Fast Cool	(400,000)									
									(400,000)	
Sales	(700,000)	(400,000)					(1,100,000)			
Cost of Goods Sold	380,000	210,000	(D1)	4,000			594,000			
Depreciation Expense—Buildings	10,000	17,500	(A4)	6,000			33,500			
Depreciation Expense—Equipment	7,000	24,000			(A5)	3,200		27,800		

Problem 3-17, Concluded

Worksheet
Year of Consolidation 1
(Concluded)

	Trial Balance		Eliminations and Adjustments				Consolidated Net Income	NCI	Controlling Retained Earnings	Consol. Balance Sheet
	Fast Cool	HD Air		Dr.		Cr.				
Other Expenses	50,000			85,000	(A6)	1,600				
			(A7)		4,000			140,600		
Interest Expense		16,000				(A3)	800	15,200		
					(D11)					
Subsidiary Income	(38,000)		(CY1)	38,000						
Dividends Declared—HD Air		10,000				(CY2)	8,000		2,000	
Dividends Declared—Fast Cool	20,000									20,000
Totals	0	0		781,600			781,600			
Consolidated Net Income							(288,900)			
NCI Share							9,500		(9,500)	
Controlling Share							279,400			(279,400)
NCI								(103,500)		(103,500)
Controlling Retained Earnings									(659,400)	(659,400)
										0

Eliminations and Adjustments:

(CY1) Current-year subsidiary income.
(CY2) Current-year dividend.
(EL) Eliminate controlling interest in Sub equity.
(D) Distribute excess.
(A) Amortize excess.

PROBLEM 3-18

(1) Equity Method Worksheet

Common information:

Ownership interest	80%
Price paid (including direct acquisition costs)	$700,000
Year of consolidation (1 = year of purchase)	2

Acquired Company's Balance Sheet before Purchase

	Book Value	Fair Value	Life		Book Value	Fair Value	Life
Priority assets:							
Accounts receivable	40,000	40,000	1	Current liabilities	30,000	30,000	1
Inventory	60,000	65,000	1	Mortgage payable	200,000	205,000	5
Total priority assets	**100,000**	**105,000**		**Total liabilities**		**230,000**	
235,000							
Nonpriority assets:							
Land	50,000	100,000	—				
Buildings	400,000	500,000	20				
Accumulated depreciation	(50,000)			Stockholders' equity:			
Equipment	150,000	100,000	5	Common stock, $1 par	100,000		
Accumulated depreciation	(30,000)			Paid-in capital in			
Patent (net)	40,000	50,000	5	excess of par		200,000	
Production backlog		10,000	2	Retained earnings	180,000		
Total nonpriority assets	**560,000**	**760,000**		Total equity		480,000	
Existing goodwill	50,000						
Total assets	**710,000**	**865,000**		**Value of net assets**	**480,000**	**630,000**	

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$(130,000)	$(104,000)	$(104,000)
Nonpriority accounts	760,000	608,000	504,000

Price Analysis

Price	$ 700,000	
Assign to priority accounts	(104,000)	full value
Assign to nonpriority accounts	608,000	full value
Goodwill	196,000	

Problem 3-18, Continued

Determination and Distribution of Excess Schedule

Price paid for investment		$700,000			
Less book value interest acquired:					
Common stock	$100,000				
Paid-in capital in excess of par	200,000				
Retained earnings	180,000				
Total equity	$480,000				
Interest acquired	× 80%	384,000			
Excess of cost over book value (debit)		$316,000			
Adjustments:					Amortization
Accounts receivable		$ —			
Inventory		4,000	1	debit D1	
Land		40,000	—	debit D2	
Accounts payable		—			
Mortgage payable		(4,000)	5	credit D3	$ (800)
Buildings		120,000	20	debit D4	6,000
Equipment		(16,000)	5	credit D5	(3,200)
Patent (net)		8,000	5	debit D6	1,600
Production backlog		8,000	2	debit D7	4,000
Goodwill		156,000		debit D8	
Total adjustments		$316,000			

Problem 3-18, Continued

(2)

Amortization Schedules
Year of Consolidation 2

Account Adjustments	Life	Annual Amount	Current Year	Prior Years	Total	Key
Inventory..... D1	1	$ 4,000		$ 4,000	$ 4,000	
Subject to amortization:						
Mortgage payable.....	5	(800)	$ (800)	(800)	(1,600)	A3
Buildings.....	20	6,000	6,000	6,000	12,000	A4
Equipment..... A5	5	(3,200)	(3,200)	(3,200)	(6,400)	
Patent (net) A6	5	1,600	1,600	1,600	3,200	
Production backlog..... A7	2	4,000	4,000	4,000	8,000	
Total amortizations			$ 7,600	$ 7,600	$ 15,200	

Subsidiary HD Air Income Distribution

	Internally generated net income.....	$67,500
	Adjusted income.....	$67,500
	NCI share.....	× 20%
	NCI.....	$13,500

Parent Fast Cool Income Distribution

Buildings depreciation.....	$6,000	Internally generated net income.....	$253,000
Patent amortization.....	1,600	80% × HD Air adjusted income of $67,500.....	54,000
Production backlog adjustment.....	4,000	Mortgage amortization.....	800
		Equipment depreciation.....	3,200
		Controlling interest	$299,400

Problem 3-18 continues on page 180.

Problem 3-18, Continued

Worksheet
Year of Consolidation 2

	Trial Balance		Eliminations and Adjustments				Consolidated Net		Controlling Retained	Consol. Balance
	Fast Cool	HD Air		Dr.		Cr.	Income	NCI	Earnings	Sheet
Cash	392,000	491,000		99,000						
Accounts Receivable	200,000	320,000		120,000						
Inventory	120,000	215,000		95,000						
Land	60,000	150,000		50,000	(D2)	40,000				
Investment in HD Air	776,000					(CY1)	54,000			
			(CY2)	8,000						
					(EL)	414,000				
					(D)	316,000				
Buildings	1,200,000	1,720,000		400,000	(D4)	120,000				
Accumulated Depreciation	(200,000)	(297,000)		(85,000)			(A4)	12,000		
Equipment	140,000	274,000		150,000			(D5)	16,000		
Accumulated Depreciation	(80,000)	(151,600)		(78,000)	(A5)	6,400				
Patent (net)		24,000	(D6)	8,000						
					(A6)	3,200				
		28,800								
Production Backlog			(D7)	8,000						
					(A7)	8,000				
Goodwill		50,000	(D8)	156,000						
		206,000								
Current Liabilities	(150,000)	(200,000)		(50,000)						
Mortgage Payable		(200,000)								
		(200,000)								
Discount (premium)					(D3)	4,000				
			(A3)	1,600						
		(2,400)								

Common Stock—HD Air		(100,000)	(EL)		80,000				(20,000)	
Paid-In Capital in Excess of Par—HD Air		(200,000)	(EL)		160,000				(40,000)	
Retained Earnings—HD Air		(217,500)	(EL)		174,000				(43,500)	
Common Stock—Fast Cool	(95,000)									(95,000)
Paid-In Capital in Excess of Par—Fast Cool	(1,405,000)									(1,405,000)
Retained Earnings—Fast Cool	(671,000)									
			(D1)	4,000						
			(A3–A7)	7,600						(659,400)
Sales	(700,000)		(500,000)					(1,200,000)		
Cost of Goods Sold	380,000		260,000					640,000		
Depreciation Expense—Buildings	10,000		17,500	(A4)	6,000			33,500		
Depreciation Expense—Equipment	7,000		24,000			(A5)	3,200		27,800	

Problem 3-18, Concluded

Worksheet
Year of Consolidation 2
(Concluded)

	Trial Balance		Eliminations and Adjustments				Consolidated Net Income	NCI	Controlling Retained Earnings	Consol. Balance Sheet
	Fast Cool	HD Air	Dr.		Cr.					
Other Expenses	50,000		115,000	(A6)	1,600					
			(A7)	4,000				170,600		
Interest Expense		16,000			(A3)		800	15,200		
Subsidiary Income	(54,000)		(CY1)	54,000						
Dividends Declared—HD Air		10,000			(CY2)		8,000		2,000	
Dividends Declared—Fast Cool	20,000									20,000
Totals	0	0		839,200			839,200			
Consolidated Net Income							(312,900)			
NCI Share							13,500		(13,500)	
Controlling Share							299,400			(299,400)
NCI								(115,000)		(115,000)
Controlling Retained Earnings									(938,800)	(938,800)
										0

Eliminations and Adjustments:
(CY1) Current-year subsidiary income.
(CY2) Current-year dividend.
(EL) Eliminate controlling interest in Sub equity.
(D) Distribute excess.
(A) Amortize excess.

PROBLEM 3A-1

Entry to record investment:

Investment in Joshua	800,000	
Common Stock		100,000
Paid-In Capital in Excess of Par		700,000

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts (net of liabilities)	$209,000	$188,100	$188,100
Nonpriority accounts	470,000	423,000	611,100

Price Analysis

Price	$800,000	
Assign to priority accounts	188,100	full value
Assign to nonpriority accounts	423,000	full value
Goodwill (net of deferred tax liability)	188,900	

Determination and Distribution of Excess Schedule

Price paid for investment		$800,000	
Less book value interest acquired:			
Common stock	$100,000		
Paid-in capital in excess of par	150,000		
Retained earnings	250,000		
Total equity	$500,000		
Interest acquired	× 90%	450,000	
Excess of cost over book value (debit)		$350,000	
Adjustments:			
Inventory		$ 45,000	debit D1
Deferred tax liability		(13,500)	credit D1t
Investment in marketable securities		18,000	debit D2
Deferred tax liability		(5,400)	credit D2t
Current deferred tax expense		10,800	debit D3
Noncurrent deferred tax expense		43,200	debit D4
Depreciable fixed assets		90,000	debit D5
Deferred tax liability		(27,000)	credit D5t
Goodwill (net of deferred tax liability)		188,900	debit D6
Extraordinary gain		—	
Total adjustments		$350,000	

Goodwill ($188,900 ÷ 70%)	$269,857
Deferred tax liability, 30%	(80,957)
Net goodwill	$188,900

PROBLEM 3A-2

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts (net of liabilities).....	$ (253,000)	$ (202,400)	$ (202,400)
Nonpriority accounts (net of DTL)	2,730,000	2,184,000	1,981,600

Price Analysis

Price	$2,400,000	
Assign to priority accounts	(202,400)	full value
Assign to nonpriority accounts	2,184,000	full value
Goodwill (net of deferred tax liability)	418,400	

Determination and Distribution of Excess Schedule

Price paid for investment		$2,400,000		
Less book value interest acquired:				
Common stock	$1,000,000			
Paid-in capital in excess of par.....	—			
Retained earnings.....	847,000			
Total equity	$1,847,000			
Interest acquired	× 80%	1,477,600		
Excess of cost over book value (debit).....		$ 922,400		
Adjustments:				
Depreciable fixed assets		$ 720,000	debit D1	
Deferred tax liability		(216,000)	credit D1t	
Goodwill (net of deferred tax liability)		418,400	debit D2	
Extraordinary gain.....		—		
Total adjustments.....		$ 922,400		

Goodwill ($418,400 ÷ 70%).....	$ 597,714
Deferred tax liability, 30%	(179,314)
Net goodwill	$ 418,400

Problem 3A-2, Continued

Tip Company and Subsidiary Kim Company
Worksheet for Consolidated Balance Sheet
December 31, 20X6

	Financial Statements		Eliminations and Adjustments		Non-controlling Interest	Consolidated
	Tip	Kim	Dr.	Cr.		
Cash	1,200,000		50,000			
Accounts Receivable	2,400,000		300,000			
Inventory	11,200,000		1,500,000			
Prepayments	422,000		47,000			
Depreciable Fixed Assets (net)	18,978,000		2,100,000 (D1)	720,000		
Investment in Kim	2,400,000			(EL)	1,477,600	
				(D)	922,400	
Goodwill			(D2) 597,714			597,
Payables	(7,200,000)		(1,750,000)			
Accruals	(1,615,000)		(400,000)			
Deferred Tax Liability				(D1T)	216,000	(395
				(D2T)	179,314	
Common Stock—Tip	(10,000,000)					(10,0
Retained Earnings—Tip	(17,785,000)					(17,7
Common Stock—Kim		(1,000,000)	(EL)	800,000		(200,000)
Retained Earnings—Kim		(847,000)	(EL)	677,600		(169,400)
Total	0	0		2,795,314	2,795,314	
Total NCI					(369,400)	(369
						0

Eliminations and Adjustments:

(CY) N/A because worksheet is prepared on the same day as consolidation.

(EL) Elimination of 80% of the subsidiary equity against the investment.

(D) Distribute the balance of the investment account, $922,400, to the specific subsidiary accounts to the Determination and Distribution of Excess Schedule:

(D1) Increase depreciable fixed assets by $720,000.

(D1T) Record a deferred tax liability of $216,000 relating to the increase in depreciable fixed assets.

(D2) Record goodwill of $597,714.

(D2T) Record a deferred tax liability of $179,314 relating to the goodwill.

Problem 3A-2, Concluded

Tip Company and Subsidiary Kim Company
Consolidated Balance Sheet
December 31, 20X6

Assets

Current assets:		
Cash	$ 1,250,000	
Accounts receivable	2,700,000	
Inventory	12,700,000	
Prepayments	469,000	$17,119,000
Equipment	$21,798,000	
Goodwill	597,714	
22,395,714		
Total assets		$39,514,714

Liabilities and Stockholders' Equity

Payables	$ 8,950,000	
Accruals	2,015,000	
Deferred tax liability	395,314	
Total liabilities		$11,360,314
Stockholders' equity:		
Noncontrolling interest		369,400
Controlling interest:		
Common stock	$10,000,000	
Retained earnings	17,785,000	
27,785,000		
Total liabilities and stockholders' equity		$39,514,714

CHAPTER 4

UNDERSTANDING THE ISSUES

1. The intercompany sale will cause both sales and costs of goods sold to be overstated by $40,000 on the consolidated income statement. The amount remaining in ending inventory will cause cost of goods sold to be understated by $2,500 (1/4 × $10,000) on the consolidated income statement and inventory to be overstated by $2,500 (1/4 × $10,000) on the consolidated balance sheet.

2. Debit Sales and credit Cost of Goods Sold for $40,000. Debit Cost of Goods Sold and credit Inventory for $2,500 (1/4 × $10,000).

3.

	20X1	20X2	
NCI	$ 0	$ 400	($2,000 × 20%)
Controlling Interest	0	5,600	[$4,000 + ($2,000 × 80%)]
Total profit	$ 0	$6,000	

4. Company S has realized a $50,000 profit; however, it is not immediate. The profit will be realized over the five-year life of the asset. Company S will realize the profit by reducing consolidated depreciation expense by $10,000 ($50,000 ÷ 5 years) each year for five years. NCI will realize $2,000 (20% × $10,000) each year.

5. a. Company S is better off borrowing the funds from Company P since it will receive a lower interest rate (9.5% instead of 10%). Therefore, Company S will have lower annual interest charges.

b. During 20X2, Company P will record interest revenue and Company S will record interest expense of $47,500 ($500,000 × 9.5%). However, the interest expense and interest revenue are eliminated during the consolidation process. Only the $40,000 of external interest expense remains on the consolidated statements.

c. Intercompany interest expense and interest revenue should not appear in the 20X1 consolidated income statement. Only the external interest expense of $40,000 will appear in the consolidated income statement.

EXERCISES

EXERCISE 4-1

Painter Company and Subsidiary Solvent Company
Consolidated Income Statement
For the Year Ended December 31, 20X1

Sales ($250,000 + $500,000 – $100,000)	$ 650,000
Cost of goods sold [$150,000 + $310,000 – $100,000 + (40% × $20,000)]	368,000
Gross profit	$ 282,000
Expenses ($45,000 + $120,000)	165,000
Consolidated net income	$117,000
Distributed to NCI	$ 9,400
Distributed to controlling interest	$ 107,600

Solvent Income Distribution Schedule

Unrealized profit in ending inventory (40% × $20,000)	$8,000	Internally generated income	$55,000
		Adjusted income	$47,000
		NCI share	× 20%
		NCI	$ 9,400

Painter Income Distribution Schedule

	Internally generated income	$ 70,000
	80% × Solvent's adjusted income of $47,000	37,600
	Controlling interest	$107,600

Painter Company and Subsidiary Solvent Company
Consolidated Income Statement
For the Year Ended December 31, 20X2

Sales ($300,000 + $540,000 – $110,000)	$ 730,000
Cost of goods sold [$180,000 + $360,000 – $110,000 – (40% × $20,000) + (40% × $30,000)]	434,000
Gross profit	$ 296,000
Expenses ($56,000 + $125,000)	181,000
Consolidated net income	$ 115,000
Distributed to NCI	$ 12,000
Distributed to controlling interest	$ 103,000

Exercise 4-1, Concluded

Solvent Income Distribution Schedule

Unrealized profit in ending inventory (40% × $30,000)	$12,000	Internally generated net income.....	$64,000
		Realized profit in beginning inventory (40% × $20,000)	8,000
		Adjusted income.....	$60,000
		NCI share.....	× 20%
		NCI.....	$12,000

Painter Income Distribution Schedule

	Internally generated net income	$ 55,000
	80% × Solvent's adjusted income of $60,000.....	48,000
	Controlling interest	$103,000

EXERCISE 4-2

(1) Gross profit recorded on the separate books:

Gross profit—Hide:		
Sales.....		$400,000
Gross profit (20% × $400,000)		80,000
Gross profit—Seek:		
Sales.....		$416,000
Cost of goods sold (80% × $400,000)	$320,000	
Add write-down of ending inventory	10,000	330,000
Gross profit		$ 86,000

(2) Consolidated gross profit:

Sales.....		$416,000
Cost of goods sold to consolidated group*		256,000
Gross profit		$160,000

*Cost of goods sold is computed as follows:

Purchases at cost (80% × $400,000)	$320,000	
Less ending inventory at cost ($80,000 × 80%)	64,000	
(note that cost is less than market)		
Cost of goods sold.....		$256,000

EXERCISE 4-3

Source of income components:

	Van	Nick	Eliminations		Consolidated Income Statement
Sales	(220,000)	(120,000)		(IS)	70,000
..... (270,000)					
Cost of goods sold	150,000	90,000		(IS)	(70,000)
			(BI)	(3,750)	
			(EI)	5,000	171,250
Other income	(5,000)		(S)	5,000	
Other expenses	40,000	12,000		(S)	(5,000)
..... 47,000					
Consolidated net income					(51,750)
Distributed to NCI					3,350
Distributed to controlling interest.....					(48,400)

Eliminations and Adjustments:

(IS) Elimination of intercompany sales.

(BI) Elimination of 25% profit from beginning inventory; debit would be to Retained Earnings; allocated 80% to the controlling interest and 20% to the NCI.

(EI) Elimination of 25% profit from ending inventory; credit would be to inventory account.

(S) Elimination of consulting services transaction.

Note: The above format and presentation is not to be expected of the student. All that is required is the final consolidated income statement and its distribution to controlling and noncontrolling interests. This format is presented to aid explanation of the exercise as it shows the sources of the numbers that determine the income statement. This form will be used for future exercises and problems to aid the instructor.

Subsidiary Nick Company Income Distribution

Unrealized ending inventory profit.....	(EI)	$5,000	Internally generated net income.....		$18,000
			Realized beginning inventory profit	(BI)	3,750
			Adjusted income.....		$16,750
			NCI share.....		× 20%
			NCI.....		$ 3,350

Parent Van Corporation Income Distribution

			Internally generated net income.....		$35,000
			80% × Nick adjusted income of $16,750		13,400

Controlling interest	$48,400

EXERCISE 4-4

(1) In the year of sale, eliminate the $15,000 gain on the sale of the machine, and adjust the machine to its net book value on the date of the sale. Reduce Depreciation Expense and Accumulated Depreciation by $3,000 to reflect depreciation based on the consolidated book value.

For 20X3 to 20X6, eliminate unamortized gain as reflected in Jungle's beginning retained earnings. Adjust Machinery to reflect book value on the date of the sale.

(2)	Gain on Sale of Machinery	15,000	
	Machinery		15,000
	Accumulated Depreciation	3,000	
	Depreciation Expense		3,000
(3)	Retained Earnings—Jungle Company	12,000	
	Accumulated Depreciation	3,000	
	Machinery		15,000
	Accumulated Depreciation	3,000	
	Depreciation Expense		3,000

EXERCISE 4-5

(1)	Gain on Sale of Land	50,000	
	Gain on Building	150,000	
	Land		50,000
	Building		150,000
	To defer unrealized gain on sale of land and on building and reduce the assets to the cost to the consolidated entity.		
(2)	Retained Earnings—Sayner*	38,500	
	Retained Earnings—Wavemasters**	154,000	
	Accumulated Depreciation ($150,000 ÷ 20 years)	7,500	
	Building		150,000
	Land		50,000

*[$50,000 land + (19 ÷ 20 × $150,000 on building)] × 20%
**$192,500 × 80%

Accumulated Depreciation	7,500	
Depreciation Expense		7,500

EXERCISE 4-6

	Dark	Light	Eliminations		Consolidated Income Statement
Sales	(700,000)	(280,000)		(F1)	60,000
..... (920,000)					
Cost of goods sold	450,000	190,000		(F1)	(50,000)
.....590,000					
Other expenses	180,000	70,000		(F2a)	(2,000)
			(F2b)	(4,000)	244,000
Other income	(20,000)				(20,000)
Consolidated net income					(106,000)
Distributed to NCI					(1,200)
Distributed to controlling interest.....					(104,800)

Eliminations and Adjustments:

(F1) Eliminate the gain on the intercompany machine sale. The machine account is credited for the $10,000 gain.

(F2a) Reduce Machine Depreciation Expense to reflect depreciation based on the consolidated book value of the asset ($10,000 profit ÷ 5 years = $2,000 per year). The debit is to Accumulated Depreciation.

(F2b) Reduce Building Depreciation Expense to reflect depreciation based on the consolidated book value of the asset ($80,000 profit ÷ 20 years = $4,000 per year). The debit is to Accumulated Depreciation.

Subsidiary Light Company Income Distribution

Unrealized gain on sale of machine	(F1)	$10,000	Internally generated net income.....		$20,000
			Realized gain through use of machine.....	(F2a)	2,000
			Adjusted income.....		$12,000
			NCI share.....		× 10%
			NCI.....		$ 1,200

Parent Dark Company Income Distribution

Internally generated net income.....		$ 90,000
Gain realized on use of building sold to subsidiary.....	(F2b)	4,000
90% × Light adjusted income of $12,000.....		10,800
Controlling interest		$104,800

EXERCISE 4-7

20X1

Subsidiary Sandbar Company Income Distribution

Unrealized profit in ending inventory (40% × $15,000)	$6,000	Internally generated net income.....	$250,000
		Adjusted income.....	$244,000
		NCI share.....	× 20%
		NCI.....	$ 48,800

Parent Peninsula Company Income Distribution

Gain on sale of real estate.....	$200,000	Internally generated net income.....	$520,000
		Realized gain on use of sold real estate [(80% × $200,000)/20].....	8,000
		80% × Sandbar adjusted income of $244,000.....	195,200
		Controlling interest	$523,200

20X2

Subsidiary Sandbar Company Income Distribution

Unrealized profit in ending inventory (40% × $20,000)	$8,000	Internally generated net income.....	$235,000
		Realized profit in beginning inventory.....	6,000
		Adjusted income.....	$233,000
		Minority share.....	× 20%
		Minority interest.....	$ 46,600

Parent Peninsula Company Income Distribution

		Internally generated net income.....	$340,000
		Realized gain on use of sold real estate	8,000
		80% × Sandbar adjusted income of $233,000.....	186,400
		Controlling interest	$534,400

EXERCISE 4-8

(1)

Saratoga			Windsor		
Notes Receivable	50,000		Cash	50,000	
Cash		50,000	Notes Payable		50,000
To record receipt of note on May 1, 20X3.			To record receipt of cash on May 1, 20X3.		
Accrued Interest Receivable	2,000*		Interest Expense	2,000	
Interest Revenue		2,000	Accrued Interest Payable		2,000
Year-end interest accrual.			Year-end interest accrual.		

*$50,000 × 6% × 8/12

(2) Eliminations:

LN1	Notes Payable	50,000	
	Accrued Interest Payable	2,000	
	Notes Receivable		50,000
	Accrued Interest Receivable		2,000
	To eliminate intercompany note and accrued interest applicable to the note.		
LN2	Interest Revenue	2,000	
	Interest Expense		2,000
	To eliminate intercompany interest revenue and expense.		

EXERCISE 4-9

(1) Saratoga

May	1	Notes Receivable	50,000	
		Cash		50,000
		To record receipt of note.		
July	1	Accrued Interest Receivable	500	
		Interest Revenue		500
		To accrue interest for two months (6% × $50,000 × 2/12).		
July	1	Interest Expense (loss on discounting)	1,033	
		Cash	49,467	
		Notes Receivable		50,000
		Accrued Interest Receivable		500
		To record proceeds of discounting note at 8%. (See schedule of computation of proceeds.)		

Exercise 4-9, Concluded

Windsor

Apr.	1	Cash	50,000	
		Notes Payable		50,000
		To record receipt of cash.		
June	30	Interest Expense	2,000	
		Interest Payable		2,000
		To record year-end accrual (6% × $50,000 × 8/12).		

Computation of Proceeds

Principal of note	$50,000
Interest due at maturity, 6% × $50,000	3,000
Total maturity value	$53,000
Less maturity value multiplied by 8% discount rate for 10/12 of period	3,533
Net proceeds of note	$49,467

(2) Eliminations:

LN1	Notes Receivable Discounted	50,000	
	Notes Receivable		50,000
	To eliminate intercompany note and reclassify the discounted note receivable as a note payable at its face value.		
LN2	Interest Revenue	500	
	Interest Expense		500
	To eliminate intercompany interest prior to the discounting.		

PROBLEMS

PROBLEM 4-1

Plaid Corporation and Subsidiary Solid Company
Worksheet for Consolidated Financial Statements
For Year Ended December 31, 20X1

	Trial Balance		Eliminations and Adjustments		Consolidated Income	Controlling Retained	Consolidated Balance
	Plaid	Solid	Dr.	Cr.	Statement	Earnings	Sheet
Cash	810,000	170,000					980,000
Accounts Receivable	425,000	365,000		(IA) 25,000			765,000
Inventory	600,000	275,000		(EI) 30,000			845,000
Property, Plant, and Equipment (net)	4,000,000		2,300,000 (D)	400,000 (A)	40,000		
Investment in Solid Company	3,410,000			(CY1) 210,000			
			(EL) 2,800,000				
			(D) 400,000				
Accounts Payable	(35,000)		(100,000) (IA)	25,000			
Common Stock ($10 par)—Plaid	(1,000,000)						(1,000,00
Paid-In Capital in Excess of Par—Plaid	(1,500,000)						(1,500,00
Retained Earnings—Plaid	(5,500,000)					(5,500,000)	
Common Stock ($10 par)—Solid		(400,000)	(EL) 400,000				
Paid-In Capital in Excess of Par—Solid		(200,000)	(EL) 200,000				
Retained Earnings—Solid		(2,200,000)	(EL) 2,200,000				
Sales	(12,000,000)		(1,000,000) (IS)	400,000		(12,600,000)	
Cost of Goods Sold	7,000,000		750,000 (EI)	30,000 (IS)	400,000	7,380,000	
Other Expenses	4,000,000		40,000 (A)	40,000		4,080,000	
Subsidiary Income	(210,000)		(CY1) 210,000				
	0	0	3,905,000	3,905,000			
Consolidated Net Income					(1,140,000)	(1,140,000)	
Retained Earnings—Controlling Interest, December 31, 20X1						(6,640,000)	(6,640,000)
							0

Problem 4-1, Concluded

Determination and Distribution of Excess Schedule

Price paid for investment		$3,200,000			
Less book value of interest acquired:					
Common stock ($10 par)	$ 400,000				
Paid-in capital in excess of par	200,000				
Retained earnings	2,200,000				
Total stockholders' equity	$2,800,000				
Interest acquired	× 100%	2,800,000			
				Amortization Periods	Amortization
Equipment		$ 400,000	Dr.	10	$40,000

Eliminations and Adjustments:

(CY1) Eliminate the entry recording the parent's share (100%) of the subsidiary's net income.
(EL) Eliminate the subsidiary's equity balances.
(D) Distribute excess to equipment.
(A) Increase depreciation expense.
(IS) Eliminate the intercompany sale of $400,000.
(IA) Eliminate the intercompany trade balances of $25,000.
(EI) Eliminate the intercompany profit (30%) applicable to $100,000 ($400,000 – $300,000) of intercompany goods in Plaid's ending inventory.

Note: An income distribution schedule is not needed because all income goes to the 100% controlling interest.

PROBLEM 4-2

(1)

Baxter Corporation and Subsidiary Crystal Company
Worksheet for Consolidated Financial Statements
For Year Ended March 31, 20X3

	Trial Balance		Eliminations and Adjustments		Consolidated Income Statement	NCI	Controlling Retained Earnings	Consolidated Balance Sheet
	Baxter	Crystal	Dr.	Cr.				
Cash	216,200	260,500	44,300					
Accounts Receivable (net)	290,000	372,000	97,000	(IAP) 10,000				
				(IAS) 5,000				
Inventory	310,000		80,000	(EIP) 1,320				
				(EIS) 750				387,930
Investment in Crystal Company	425,000		(CV) 32,000	(EL) 352,000				
				(D) 105,000				
Land	1,081,000	1,231,000	150,000					
Building and Equipment	1,850,000	2,250,000	400,000					
Accumulated Depreciation	(940,000)	(1,150,000)	(210,000)					
Goodwill	60,000		(D) 105,000					
		165,000						
Accounts Payable	(242,200)		(106,300) (IAP) 10,000					
			(IAS) 5,000					
		(333,500)						
Bonds Payable	(400,000)	(400,000)						
Common Stock—Baxter	(250,000)	(250,000)						
Paid-In Capital in Excess of Par—Baxter	(1,250,000)	(1,250,000)						
Retained Earnings, April 1, 20X2—Baxter	(1,105,000)			(CV) 32,000				
			(BIP) 1,350					
			(BIS) 560				(1,135,090)	
Common Stock—Crystal		(200,000)	(EL) 160,000				(40,000)	
Paid-In Capital in Excess of Par—Crystal		(100,000)	(EL) 80,000				(20,000)	
Retained Earnings, April 1, 20X2—Crystal		(140,000)	(EL) 112,000					
			(BIS) 140			(27,860)		

Sales	(880,000)		(630,000)	(ISP)		32,000						
			(ISS)	30,000					(1,448,000)			
Dividend Income from Crystal	(24,000)		(CY2)	24,000								
Cost of Goods Sold	704,000		504,000	(EIP)		1,320	(BIP)	1,350				
			(EIS)	750	(ISP)	32,000						
					(BIS)	700						
					(ISS)	30,000			1,146,020			
Other Expenses	130,000		81,000	(A)					211,000			
Dividends Declared	25,000		30,000				(CY2)	24,000				6,000
	25,000											
	0	0	594,120					594,120				
Consolidated Net Income								90,980				
To NCI (see distribution schedule)								8,990			(8,990)	
To Controlling Interest (see distribution schedule)								81,990				(81,990)
Total NCI									(90,850)			
								(90,850)				
Retained Earnings—Controlling Interest, March 31, 20X3											(1,192,080)	
									(1,192,080)			
												0

Problem 4-2, Continued

Eliminations and Adjustments:

(CV) Convert to equity method:
Change in equity × 80% = $40,000 × 80% = $32,000.

(CY2) Eliminate intercompany dividends.

(EL) Eliminate parent's share of subsidiary equity.

(D) Distribute excess to goodwill, according to determination and distribution of excess schedule.

(BIP) Eliminate intercompany profit from beginning inventory on sales from Baxter to Crystal, $9,000 × 15% = $1,350.

(ISP) Eliminate sales from Baxter to Crystal from April 20X2–March 20X3 ($32,000).

(EIP) Eliminate intercompany profit from ending inventory on sales from Baxter to Crystal, $6,000 × 22% = $1,320.

(IAP) Eliminate intercompany trade balances on sales from Baxter to Crystal.

(BIS) Eliminate intercompany profit from beginning inventory on sales from Crystal to Baxter, $3,500 × 20% = $700.

(ISS) Eliminate sales from Crystal to Baxter.

(EIS) Eliminate intercompany profit from ending inventory on sales from Crystal to Baxter, $3,000 × 25% = $750.

(IAS) Eliminate intercompany trade balances on sales from Crystal to Baxter.

Determination and Distribution of Excess Schedule

Price paid		$425,000
Less interest acquired:		
Total stockholders' equity	$400,000	
Interest acquired	× 80%	320,000
Goodwill		$105,000Dr.

Subsidiary Crystal Company Income Distribution

Unrealized profit in ending inventory	$750	Internally generated net income	$45,000
		Realized profit in beginning inventory	700
		Adjusted income	$44,950
		NCI share	× 20%
		NCI	$ 8,990

Problem 4-2, Concluded

Parent Baxter Corporation Income Distribution

Unrealized profit in ending inventory	$1,320	Internally generated net income	$46,000
		Realized profit in beginning inventory	1,350
		80% × Crystal adjusted income of $44,950	35,960
		Controlling interest	$81,990

(2) Baxter Corporation and Subsidiary Crystal Company
Consolidated Income Statement
For Year Ended March 31, 20X3

Sales		$1,448,000
Cost of goods sold		1,146,020
Gross profit	$	301,980
Expenses		211,000
Consolidated net income	$	90,980
Distributed to NCI		8,990
Distributed to controlling interest	$	81,990

PROBLEM 4-3

(1) Intercompany Merchandise Sales

Common Information:

Ownership interest	70%
Price paid (including direct acquisition costs)	$350,000
Year of consolidation (1 = year of purchase)	2

Problem 4-3, Continued

Spider Corporation's Balance Sheet before Purchase

	Book Value	Fair Value	Life		Book Value	Fair Value	Life
Priority assets:							
Accounts receivable	60,000	60,000	1	Accounts payable	40,000	40,000	1
Inventory	40,000	40,000	1	Bonds payable	100,000	100,000	5
Total priority assets	**100,000**	**100,000**		**Total liabilities**	**140,000**	**140,000**	
Nonpriority assets:							
Land	60,000	60,000	—	Stockholders' equity:			
Buildings	200,000	300,000	20	Common stock, $1 par	10,000		
Accumulated depreciation	(50,000)			Paid-in capital in			
Equipment	72,000	100,000	5	excess of par	90,000		
Accumulated depreciation	(30,000)			Retained earnings	112,000		
Total nonpriority assets	**252,000**	**460,000**		Total equity	212,000		
Existing goodwill							
Total assets	**352,000**	**560,000**		**Value of net assets**	**212,000**	**420,000**	

Intercompany Merchandise Information

	Parent Sales	Parent Percent	Subsidiary Sales	Subsidiary Percent
Current-year sales			$30,000	
Unpaid account balance, year-end			6,000	
Beginning inventory			8,000	25%
Ending inventory			6,000	30%

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$ (40,000)	$ (28,000)	$ (28,000)
Nonpriority accounts	460,000	322,000	294,000

Price Analysis

Price	$350,000	
Assign to priority accounts	(28,000)	full value
Assign to nonpriority accounts	322,000	full value
Goodwill	56,000	

Problem 4-3, Continued

Determination and Distribution of Excess Schedule

Price paid for investment		$350,000			
Less book value interest acquired:					
Common stock	$ 10,000				
Paid-in capital in excess of par	90,000				
Retained earnings	112,000				
Total equity	$212,000				
Interest acquired	× 70%	148,400			
Excess of cost over book value (debit)		$201,600			
					Amortization
Buildings		$105,000	20	debit D1	$5,250
Equipment		40,600	5	debit D2	8,120
Goodwill		56,000		debit D3	
Total adjustments		$201,600			

(2) Amortization Schedules

Year of Consolidation 2

Account Adjustments To Be Amortized	Life	Annual Amount	Current Year	Prior Years	Total	Key
Buildings	20	$ 5,250	$ 5,250	$ 5,250	$10,500	A1
Equipment	5	8,120	8,120	8,120	16,240	A2
Total amortizations		$13,370	$13,370	$13,370	$26,740	

Intercompany inventory profit deferral:

	Parent Amount	Parent Percent	Parent Profit	Sub. Amount	Sub. Percent	Sub. Profit
Beginning	—	0%	—	$8,000	25%	$2,000
Ending	—	0%	—	6,000	30%	1,800

Subsidiary Spider Income Distribution

Ending inventory profit	$1,800	Internally generated net income	$20,000
		Beginning inventory profit	2,000
		Adjusted income	$20,200
		NCI share	× 30%
		NCI	$ 6,060

Problem 4-3, Continued

Parent Panther Income Distribution

Buildings depreciation.....	$5,250	Internally generated net income.....	$165,000
Equipment depreciation	8,120	70% share of Spider adjusted income of $20,200.....	14,140
		Controlling interest	$165,770

Problem 4-3, Continued

Year of Consolidation 2

	Trial Balance		Eliminations				Consolidated Net		Controlling Retained	Consolidated Balance
	Panther	Spider		Dr.		Cr.	Income	NCI	Earnings	Sheet
Cash	116,000	132,000								248,000
Accounts Receivable	90,000	45,000			(IA)	6,000				129,000
Inventory	120,000	56,000			(EI)	1,800				174,200
Land	100,000	60,000								160,000
Investment in Spider	378,000				(CY1)	14,000				
			(CY2)	7,000						
					(EL)	169,400				
					(D)	201,600				
Buildings	800,000	200,000	(D1)	105,000						1,105,000
Accumulated Depreciation	(220,000)		(65,000)			(A1)	10,500			(295,500)
Equipment	150,000	72,000	(D2)	40,600						262,600
Accumulated Depreciation	(90,000)		(46,000)			(A2)	16,240			(152,240)
Goodwill			(D3)	56,000						56,000
Accounts Payable	(60,000)		(102,000)		(IA)	6,000				(156,000)
Bonds Payable		(100,000)								(100,000)
Discount (premium)										
Common Stock—Spider		(10,000)	(EL)	7,000					(3,000)	
Paid-In Capital in Excess of Par—Spider		(90,000)	(EL)	63,000					(27,000)	
Retained Earnings—Spider		(142,000)	(EL)	99,400						
			(BI)	600				(42,000)		
Common Stock—Panther	(100,000)									(100,000)
Paid-In Capital in Excess of Par—Panther	(800,000)									(800,000)
Retained Earnings—Panther	(325,000)		(A1–A2)	13,370						
			(BI)	1,400						
									(310,230)	
Sales	(800,000)		(350,000)		(IS)	30,000		(1,120,000)		
Cost of Goods Sold	450,000	208,500			(IS)	30,000				
			(EI)	1,800	(BI)	2,000	628,300			
Depreciation Expense—Buildings	30,000	7,500	(A1)	5,250			42,750			
Depreciation Expense—Equipment	15,000	8,000	(A2)	8,120			31,120			
Other Expenses	140,000	98,000					238,000			
Interest Expense		8,000					8,000			
Subsidiary Income	(14,000)		(CY1)			14,000				
Dividends Declared—Spider		10,000			(CY2)	7,000		3,000		

Dividends Declared—Panther	20,000	.....	.....	.....	.....	.....	20,000	.....
Totals	0	0	458,540	458,540	.....	.....	.....	.....
Consolidated Net Income					(171,830)	.....	.....	.....
NCI Share					6,060	(6,060)	.....	.....
Controlling Share					165,770	.....	(165,770)	.....
NCI						(75,060)	.....	(75,060)
Controlling Retained Earnings							(456,000)	(456,000)
Totals								0

Problem 4-3, Concluded

Eliminations and Adjustments:

(CY1)	Current-year subsidiary income.
(CY2)	Current-year dividend.
(EL)	Eliminate controlling interest in subsidiary equity.
(D)	Distribute excess.
(A)	Amortize excess.
(IS)	Eliminate intercompany sales during current period.
(IA)	Eliminate intercompany unpaid trade accounts.
(BI)	Defer beginning inventory profit.
(EI)	Defer ending inventory profit.

PROBLEM 4-4

(1) Intercompany Merchandise Sales

Common Information:

Ownership interest	70%
Price paid (including direct acquisition costs)	$350,000
Year of consolidation (1 = year of purchase)	2

Acquired Company's Balance Sheet before Purchase

	Book Value	Fair Value	Life		Book Value	Fair Value	Life
Priority assets:							
Accounts receivable	60,000	60,000	1	Accounts payable	40,000	40,000	1
Inventory	40,000	40,000	1	Bonds payable	100,000	100,000	5
Total priority assets	**100,000**	**100,000**		**Total liabilities**	**140,000**	**140,000**	
Nonpriority assets:							
Land	60,000	60,000	—	Stockholders' equity:			
Buildings	200,000	300,000	20	Common stock, $1 par	10,000		
Accumulated depreciation	(50,000)			Paid-in capital in			
Equipment	72,000	100,000	5	excess of par	90,000		
Accumulated depreciation	(30,000)			Retained earnings	112,000		
Total nonpriority assets	**252,000**	**460,000**		Total equity	212,000		
Existing goodwill							
Total assets	**352,000**	**560,000**		**Value of net assets**	**212,000**	**420,000**	

Intercompany Merchandise Information

	Parent Sales	Parent Percent	Subsidiary Sales	Subsidiary Percent
Current-year sales	$60,000		$40,000	
Unpaid account balance, year-end	12,000		11,000	
Beginning inventory	15,000	40%	10,000	25%
Ending inventory	22,000	35%	6,000	30%

Problem 4-4, Continued

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$ (40,000)	$ (28,000)	$ (28,000)
Nonpriority accounts	460,000	322,000	294,000

Price Analysis

Price	$350,000	
Assign to priority accounts	(28,000)	full value
Assign to nonpriority accounts	322,000	full value
Goodwill	56,000	

Determination and Distribution of Excess Schedule

Price paid for investment		$350,000		
Less book value interest acquired:				
Common stock	$ 10,000			
Paid-in capital in excess of par	90,000			
Retained earnings	112,000			
Total equity	$212,000			
Interest acquired	× 70%	148,400		
Excess of cost over book value (debit)		$201,600	Amortization Periods	Amortization
Buildings		$105,000	20 debit D1	$5,250
Equipment		40,600	5 debit D2	8,120
Goodwill		56,000	debit D3	
Total adjustments		$201,600		

(2) Amortization Schedules
Year of Consolidation 2

Account Adjustments To Be Amortized	Life	Annual Amount	Current Year	Prior Years	Total	Key
Buildings	20	$ 5,250	$ 5,250	$	5,250	
$10,500 A1						
Equipment	5	8,120	8,120	8,120	16,240	
A2						
Total amortizations		$13,370	$13,370	$13,370	$26,740	

Intercompany inventory profit deferral:

	Parent Amount	Parent Percent	Parent Profit	Sub. Amount	Sub. Percent	Sub. Profit
Beginning	$15,000	40%	$6,000	$10,000	25%	$2,500
Ending	22,000	35%	7,700	6,000	30%	1,800

Problem 4-4, Continued

Subsidiary Spider Income Distribution

Ending inventory profit	$1,800	Internally generated net income	$20,000
		Beginning inventory profit	2,500
		Adjusted income	$20,700
		NCI share	× 30%
		NCI	$ 6,210

Parent Panther Income Distribution

Buildings depreciation	$5,250	Internally generated net income	$165,000
Equipment depreciation	8,120	70% share of Spider adjusted income of $20,700	14,490
Ending inventory profit	7,700	Beginning inventory profit	6,000
		Controlling interest	$164,420

Problem 4-4, Continued

Year of Consolidation 2

	Trial Balance		Eliminations				Consolidated Net		Controlling	Consolidated
	Panther	Spider		Dr.		Cr.	Income	NCI	Retained Earnings	Balance Sheet
Cash	116,000	132,000								248,000
Accounts Receivable	90,000	45,000			(IA)	23,000				112,000
Inventory	120,000	56,000			(EI)	9,500				166,500
Land	100,000	60,000								160,000
Investment in Spider	378,000				(CY1)	14,000				
			(CY2)	7,000						
					(EL)	169,400				
					(D)	201,600				
Buildings	800,000	200,000	(D1)	105,000						1,105,000
Accumulated Depreciation	(220,000)		(65,000)			(A1)	10,500			
(295,500)										
Equipment	150,000	72,000	(D2)	40,600						262,600
Accumulated Depreciation	(90,000)		(46,000)			(A2)	16,240			
(152,240)										
Goodwill			(D3)	56,000						56,000
Accounts Payable	(60,000)		(102,000)		(IA)	23,000				
(139,000)										
Bonds Payable		(100,000)								
(100,000)										
Discount (premium)										
Common Stock—Spider		(10,000)	(EL)		7,000				(3,000)	
Paid-In Capital in Excess of Par—Spider		(90,000)	(EL)		63,000				(27,000)	
Retained Earnings—Spider		(142,000)	(EL)		99,400					
			(BI)	750				(41,850)		
Common Stock—Panther	(100,000)									
(100,000)										
Paid-In Capital in Excess of Par—Panther	(800,000)									
(800,000)										
Retained Earnings—Panther	(325,000)		(A1–A2)	13,370						
			(BI)	7,750						
									(303,880)	
Sales	(800,000)		(350,000)		(IS)	100,000		(1,050,000)		
Cost of Goods Sold	450,000	208,500			(IS)	100,000				
			(EI)	9,500	(BI)	8,500	559,500			
Depreciation Expense—Buildings	30,000	7,500	(A1)	5,250			42,750			
Depreciation Expense—Equipment	15,000	8,000	(A2)	8,120			31,120			
Other Expenses	140,000	98,000					238,000			
Interest Expense		8,000					8,000			
Subsidiary Income	(14,000)		(CY1)	14,000						
Dividends Declared—Spider		10,000			(CY2)	7,000		3,000		
Dividends Declared—Panther	20,000								20,000	

Totals	0	0	559,740	559,740				
Consolidated Net Income					(170,630)			
NCI Share					6,210		(6,210)	
Controlling Share					164,420			(164,420)
NCI						(75,060)		
						(75,060)		
Controlling Retained Earnings							(448,300)	
						(448,300)		
Totals								0

Problem 4-4, Concluded

Eliminations and Adjustments:

(CY1) Current-year subsidiary income.
(CY2) Current-year dividend.
(EL) Eliminate controlling interest in subsidiary equity.
(D) Distribute excess.
(A) Amortize excess.
(IS) Eliminate intercompany sales during current period.
(IA) Eliminate intercompany unpaid trade accounts.
(BI) Defer beginning inventory profit [Panther = $6,000 + (70% × $2,500)].
(EI) Defer ending inventory profit.

PROBLEM 4-5

Determination and Distribution of Excess Schedule

Price paid for investment in Jenkins Company		$960,000	
Less interest acquired:			
Common stock ($5 par)	$ 450,000		
Paid-in capital in excess of par	180,000		
Retained earnings	370,000		
Total stockholders' equity	$1,000,000		
Interest acquired	× 80%	800,000	
Excess of price paid over book value (debit balance)		$160,000	
Adjustments to accounts:			
Land ($75,000 × 80%)		$ 60,000	Dr.
Goodwill		100,000	Dr.
Total adjustments		$160,000	

Price paid for investment in Jenkins Company stock:	
Jenkins Company stock outstanding ($450,000 ÷ $5 par)	90,000 shares
Ownership interest	× 80%
Shares acquired	72,000
Silvio Corporation shares issued (72,000 ÷ 3)	24,000
Market value of shares	× $40
Price paid for 70% interest	$960,000

Eliminations and Adjustments:

(CY1) Eliminate the entry recording the parent's share of the subsidiary's net income.
(EL) Eliminate the parent's (80%) share of Jenkins Company equity against the investment.
(D) Distribute excess according to the determination and distribution schedule.
(BI) Eliminate the intercompany profit of $7,500 (30% × $25,000) from beginning inventory.
(IS) Eliminate intercompany sales.
(EI) Eliminate intercompany profit remaining after write-down of ending inventory, (30% × $35,000) – $7,000 = $3,500.

Problem 4-5, Continued

(LN1) Eliminate intercompany note.
(LN2) Eliminate the intercompany interest on note, accrued receivable, and accrued payable (12% × 4/12 × 1/2 × $10,000).

Subsidiary Jenkins Company Income Distribution

	Internally generated net income	$110,000
	Adjusted income	$110,000
	NCI share	× 20%
	NCI	$ 22,000

Parent Silvio Corporation Income Distribution

Unrealized profit in ending inventory	$3,500	Internally generated net income	$116,500
		80% × Jenkins adjusted income of $110,000	88,000
		Realized profit on beginning inventory	7,500
		Controlling interest	$208,500

Problem 4-5, Concluded

Silvio Corporation and Subsidiary Jenkins Company
Worksheet for Consolidated Financial Statements
For Year Ended December 31, 20X3

	Trial Balance		Eliminations and Adjustments		Consolidated Income		Controlling Retained	Consolidated Balance
	Silvio	Jenkins	Dr.	Cr.	Statement	NCI	Earnings	Sheet
Cash	140,000	205,200						345,200
Accounts Receivable	285,000	110,000						395,000
Interest Receivable	1,500			(LN2) 200				1,300
Notes Receivable	50,000			(LN1) 10,000				40,000
Inventory	470,000	160,000		(EI) 3,500				626,500
Land	350,000	300,000	(D1) 60,000					710,000
Depreciable Fixed Assets	1,110,000	810,000						1,920,000
Accumulated Depreciation	(500,000)	(200,000)						(700,000)
Intangibles	60,000							60,000
Investment in Jenkins Company	1,128,000			(CY1) 88,000				
				(EL) 880,000				
				(D) 160,000				
Goodwill			(D2) 100,000					100,000
Accounts and Notes Payable	(611,500)	(175,000)	(LN1) 10,000					(776,500)
Interest Payable		(200)	(LN2) 200					
Common Stock—Silvio	(400,000)							(400,000)
Paid-In Capital in Excess of Par—Silvio	(1,235,000)							(1,235,000)
Retained Earnings, January 1, 20X3—Silvio	(958,500)							
		(BI) 7,500					(951,000)	
Common Stock—Jenkins		(450,000)	(EL) 360,000				(90,000)	
Paid-In Capital in Excess of Par—Jenkins		(180,000)	(EL) 144,000				(36,000)	
Retained Earnings, January 1, 20X3—Jenkins		(470,000)	(EL) 376,000				(94,000)	
Treasury Stock (at cost)	315,000							315,000
Sales	(1,020,000)	(500,000)	(IS) 140,000			(1,380,000)		
Interest Income	(1,500)		(LN2) 200		(1,300)			
Subsidiary Income	(88,000)		(CY1) 88,000					
Cost of Goods Sold	705,000	300,000	(EI) 3,500	(BI) 7,500				
				(IS) 140,000	861,000			
Other Expenses	200,000	90,000		(LN2) 200	289,800			
	0	0	1,289,400	1,289,400				
Consolidated Net Income					(230,500)			
NCI (see distribution schedule)					22,000	(22,000)		
Controlling Interest (see distribution schedule)					208,500		(208,500)	

Total NCI	(242,000)	(242,000)
Retained Earnings—Controlling Interest, December 31, 20X3		(1,159,500)
Totals		(1,159,500)
		0

PROBLEM 4-6

Parcel Corporation and Subsidiary Sack Corporation
Worksheet for Consolidated Financial Statements
For Year Ended August 31, 20X3

	Trial Balance		Eliminations and Adjustments				Consolidated Income		Controlling Retained	Consolidated Balance
	Parcel	Sack		Dr.		Cr.	Statement	NCI	Earnings	Sheet
Cash	120,000	50,000								170,000
Accounts Receivable (net)	115,000	18,000								133,000
Notes Receivable		10,000								10,000
Inventory, August 31, 20X3	175,000	34,000								209,000
Investment in Sack Corporation	217,440		(CY2)	5,600	(CY1)	23,040				
					(EL)	200,000				
Plant and Equipment	990,700	295,000			(F1S)	9,000				1,213,700
					(F1P)	63,000				
Accumulated Depreciation	(170,000)		(85,000)	(F1S)	3,000					
			(F2S)	3,000						(242,700)
			(F2P)	6,300						
Other Assets	28,000									28,000
Accounts Payable	(80,000)		(50,200)							
	(130,200)									
Notes Payable	(25,000)									
	(25,000)									
Bonds Payable	(300,000)									
	(300,000)									
Common Stock ($10 par)—Parcel	(290,000)									
	(290,000)									
Paid-In Capital in Excess of Par—Parcel	(110,000)									
	(110,000)									
Retained Earnings, September 1, 20X2—Parcel	(498,850)		(F1S)	4,800					(494,050)	
Common Stock ($10 par)—Sack		(70,000)	(EL)		56,000				(14,000)	
Paid-In Capital in Excess of Par—Sack		(62,000)	(EL)		49,600				(12,400)	
Retained Earnings, September 1, 20X2—Sack		(118,000)	(EL)		94,400				(22,400)	
			(F1S)	1,200						
Sales	(920,000)		(240,000)					(1,160,000)		
Cost of Goods Sold	598,000	132,000					730,000			
Selling and General Expenses	108,000	80,000			(F2S)	3,000	178,700			
					(F2P)	6,300				
Subsidiary Income	(23,040)		(CY1)	23,040						
Interest Income		(800)					(800)			
Interest Expense	37,750						37,750			
Gain on Sale of Equipment	(63,000)		(F1P)	63,000						
Dividends Declared	90,000	7,000			(CY2)	5,600		1,400	90,000	
	0	0		309,940		309,940				

Consolidated Net Income	(214,350)			
To NCI (see distribution schedule)	6,360	(6,360)		
To Controlling Interest (see distribution schedule)	207,990		(207,990)	
Total NCI		(53,760)		
	(53,760)			
Retained Earnings—Controlling Interest, December 31, 20X3			(612,040)	
		(612,040)		
Totals				0

Problem 4-6, Concluded

Subsidiary Sack Corporation Income Distribution

	Internally generated net income		$28,800
	20X3 amortization of deferred gain on 20X1 sale of truck	(F2S)	3,000
	Adjusted income		$31,800
	NCI share		× 20%
	NCI		$ 6,360

Parent Parcel Corporation Income Distribution

20X3 deferred gain on sale of equipment	(F1P)	$63,000	Internally generated net income		$239,250
			20X3 amortization of the deferred gain	(F2P)	6,300
			80% × Sack adjusted income of $31,800		25,440
			Controlling interest		$207,990

Eliminations and Adjustments:

(CY1) Eliminate the entry recording the parent's share of the subsidiary net income.

(CY2) Eliminate the parent's share of Sack's dividends declared.

(EL) Eliminate the investment in Sack and the parent's share (80%) of the subsidiary equity balances.

(F1S) Eliminate the prior-year intercompany gain ($14,000 – $5,000 = $9,000) less the $3,000 realized gain. Adjust the asset and the accumulated depreciation.

(F2S) Adjust current-year Depreciation Expense and Accumulated Depreciation for the intercompany truck sale effect ($9,000 ÷ 3 = $3,000).

(F1P) Eliminate the current period intercompany gain on the sale of the equipment, and re-establish its net book value by reducing the account by $63,000.

(F2P) Adjust current-year Depreciation Expense and Accumulated Depreciation for the intercompany sale of equipment effect ($63,000 ÷ 10 = $6,300).

PROBLEM 4–7

(1)

Intercompany Merchandise Sales
Fixed Asset Profit

Common Information:	
Ownership interest	80%
Price paid (including direct acquisition costs)	$440,000
Year of consolidation (1 = year of purchase)	2

Salsa Company's Balance Sheet before Purchase

	Book Value	Fair Value	Life		Book Value	Fair Value	Life
Priority assets:							
Accounts receivable	60,000	60,000	1	Accounts payable	40,000	40,000	1
Inventory	40,000	40,000		1 Bonds payable	100,000	100,000	5
Total priority assets	**100,000**	**100,000**		**Total liabilities**	**140,000**	**140,000**	
Nonpriority assets:							
Land	60,000	60,000		Stockholders' equity:			
Buildings	200,000	250,000	20	Common stock, $1 par	10,000		
Accumulated depreciation	(50,000)			Paid-in capital in			
Equipment	72,000	80,000	5	excess of par	90,000		
Accumulated depreciation	(30,000)			Retained earnings	112,000		
Total nonpriority assets	**252,000**	**390,000**		Total equity	212,000		
Existing goodwill							
Total assets	**352,000**	**490,000**		**Value of net assets**	**212,000**	**350,000**	

Intercompany Merchandise Information

	Parent Sales	Parent Percent	Subsidiary Sales	Subsidiary Percent
Current-year sales			$75,000	
Unpaid account balance, year-end			20,000	
Beginning inventory			12,000	25%
Ending inventory			18,000	30%

Intercompany Equipment Sales

	By Parent	By Subsidiary
Profit amount	$20,000	
Life of asset	5	
Annual depreciation adjustment	$4,000	
Year of sale (assume beginning of year)	2	

Problem 4-7, Continued

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$ (40,000)	$ (32,000)	$ (32,000)
Nonpriority accounts	390,000	312,000	280,000

Price Analysis		
Price	$440,000	
Assign to priority accounts	(32,000)	full value
Assign to nonpriority accounts	312,000	full value
Goodwill	160,000	

Determination and Distribution of Excess Schedule

Price paid for investment		$440,000		
Less book value interest acquired:				
Common stock	$ 10,000			
Paid-in capital in excess of par	90,000			
Retained earnings	112,000			
Total equity	$212,000			
Interest acquired	× 80%	169,600		
Excess of cost over book value (debit)		$270,400	Amortization Periods	Amortization
Buildings		$ 80,000	20 debit D1	$4,000
Equipment		30,400	5 debit D2	6,080
Goodwill		160,000	debit D3	
Total adjustments		$270,400		

Amortization Schedules
Year of Consolidation 2

Account Adjustments To Be Amortized	Life	Annual Amount	Current Year	Prior Years	Total	Key
Buildings A1	20	$ 4,000	$ 4,000	$ 4,000	$ 4,000	$ 8,000
Equipment A2	5	6,080	6,080	6,080		12,160
Total amortizations		$10,080	$10,080	$10,080		$ 20,160

Problem 4-7, Continued

Intercompany inventory profit deferral:

	Parent Amount	Parent Percent	Parent Profit	Sub. Amount	Sub. Percent	Sub. Profit
Beginning	—	0%	—	$12,000	25%	$3,000
Ending	—	0%	—	18,000	30%	5,400

Intercompany fixed asset profit deferral:

	Parent	Subsidiary
Original profit	$20,000	—
Year of sale	2	—
Realized in prior years	—	—
Balance, start of year	$20,000	—
Realized in current year	$4,000	—

Subsidiary Salsa Income Distribution

Ending inventory profit	$5,400	Internally generated net income	$20,000
		Beginning inventory profit	3,000
		Adjusted income	$17,600
		NCI share	× 20%
		NCI	$ 3,520

Parent Polka Income Distribution

Buildings depreciation	$ 4,000	Internally generated net income	$165,000
Equipment depreciation	6,080	80% share of Salsa adjusted income of $17,600	14,080
Equipment gain	20,000	Realized gain	4,000
		Controlling interest	$153,000

Problem 4-7 continues on page 218.

Problem 4-7, Continued

Year of Consolidation 2

	Trial Balance		Eliminations and Adjustments		Consolidated Income Statement	NCI	Controlling Retained Earnings	Consolidated Balance Sheet
	Polka	Salsa	Dr.	Cr.				
Cash	24,000	132,000						156,000
Accounts Receivable	90,000	45,000		(IA) 20,000				115,000
Inventory	120,000	56,000		(EI) 5,400				170,600
Land	100,000	60,000						160,000
Investment in Salsa	472,000			(CY1) 16,000				
			(CY2) 8,000					
				(EL) 193,600				
				(D) 270,400				
Buildings	800,000	200,000	(D1) 80,000					1,080,000
Accumulated Depreciation	(220,000)		(65,000)	(A1)	8,000			(293,000)
Equipment	150,000	72,000	(D2) 30,400	(F1) 20,000				232,400
Accumulated Depreciation	(90,000)		(46,000)	(A2)	12,160			
			(F2) 4,000					(144,160)
Goodwill			(D3) 160,000					160,000
Accounts Payable	(60,000)		(102,000) (IA)	20,000				(142,000)
Bonds Payable		(100,000)						(100,000)
Discount (premium)								
Common Stock—Salsa		(10,000)	(EL) 8,000				(2,000)	
Paid-In Capital in Excess of Par—Salsa		(90,000)	(EL) 72,000				(18,000)	
Retained Earnings—Salsa		(142,000)	(EL) 113,600					
			(BI) 600					
						(27,800)		
Common Stock—Polka	(100,000)							(100,000)
Paid-In Capital in Excess of Par—Polka	(800,000)							(800,000)
Retained Earnings—Polka	(325,000)		(A1–A2) 10,080					
			(BI) 2,400					
							(312,520)	
Sales	(800,000)		(350,000) (IS)	75,000		(1,075,000)		
Cost of Goods Sold	450,000	208,500		(IS) 75,000				
			(EI) 5,400	(BI) 3,000	585,900			
Depreciation Expense—Buildings	30,000	7,500	(A1) 4,000		41,500			
Depreciation Expense—Equipment	15,000	8,000	(A2) 6,080					
				(F2) 4,000	25,080			

Other Expenses	160,000	98,000			258,000			
Interest Expense		8,000			8,000			
Gain on Fixed Asset Sale	(20,000)		(F1)	20,000				
Subsidiary Income	(16,000)		(CY1)16,000					

Problem 4-7, Concluded

Year of Consolidation 2
(Concluded)

	Trial Balance		Eliminations and Adjustments				Consolidated Income Statement	NCI	Controlling Retained Earnings	Consolidated Balance Sheet
	Polka	Salsa	Dr.		Cr.					
Dividends Declared—-Salsa		10,000		(CY2)	8,000			2,000		
Dividends Declared—Polka	20,000								20,000	
Totals	0	0	635,560		635,560					
Consolidated Net Income							(156,520)			
NCI Share							3,520	(3,520)		
Controlling Share							153,000		(153,000)	
NCI								(49,320)		
							(49,320)			
Controlling Retained Earnings									(445,520)	
								(445,520)		
Totals										0

(CY1) Current-year subsidiary income.
(CY2) Current-year dividend.
(EL) Eliminate controlling interest in subsidiary equity.
(D) Distribute excess.
(A) Amortize excess.
(IS) Eliminate intercompany sale during current period.
(IA) Eliminate intercompany unpaid trade accounts.
(BI) Defer beginning inventory profit.
(EI) Defer ending inventory profit.
(F1) Fixed asset profit at beginning of year.
(F2) Fixed asset profit realized.

PROBLEM 4-8

(1) Intercompany Merchandise Sales
Fixed Asset Profit

Common Information:

Ownership interest	80%
Price paid (including direct acquisition costs)	$440,000
Year of consolidation (1 = year of purchase)	2

Salsa Company's Balance Sheet before Purchase

	Book Value	Fair Value	Life		Book Value	Fair Value	Life
Priority assets:							
Accounts receivable	60,000	60,000	1	Accounts payable	40,000	40,000	1
Inventory	40,000	40,000		1 Bonds payable	100,000	100,000	5
Total priority assets	**100,000**	**100,000**		**Total liabilities**	**140,000**	**140,000**	
Nonpriority assets:							
Land	60,000	60,000		Stockholders' equity:			
Buildings	200,000	250,000	20	Common stock, $1 par	10,000		
Accumulated depreciation	(50,000)			Paid-in capital in			
Equipment	72,000	80,000	5	excess of par	90,000		
Accumulated depreciation	(30,000)			Retained earnings	112,000		
Total nonpriority assets	**252,000**	**390,000**		Total equity	212,000		
Existing goodwill			10				
Total assets	**352,000**	**490,000**		**Value of net assets**	**212,000**	**350,000**	

Intercompany Merchandise Information

	Parent Sales	Parent Percent	Subsidiary Sales	Subsidiary Percent
Current-year sales	$100,000			
Unpaid account balance, year-end	15,000			
Beginning inventory	20,000	30%		
Ending inventory	25,000	30%		

Intercompany Equipment Sales

	By Parent	By Subsidiary
Profit amount		$30,000
Life of asset		6
Annual depreciation adjustment		$5,000
Year of sale (assume beginning of year)		1

Problem 4-8, Continued

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$ (40,000)	$ (32,000)	$ (32,000)
Nonpriority accounts	390,000	312,000	280,000

Price Analysis

Price	$440,000	
Assign to priority accounts	(32,000)	full value
Assign to nonpriority accounts	312,000	full value
Goodwill	160,000	

Determination and Distribution of Excess Schedule

Price paid for investment		$440,000		
Less book value interest acquired:				
Common stock	$ 10,000			
Paid-in capital in excess of par	90,000			
Retained earnings	112,000			
Total equity	$212,000			
Interest acquired	× 80%	169,600		
Excess of cost over book value (debit)		$270,400	Amortization Periods	Amortization
Buildings		$ 80,000	20 debit D1	$4,000
Equipment		30,400	5 debit D2	6,080
Goodwill		160,000	debit D3	
Total adjustments		$270,400		

Problem 4-8, Continued

(2) Amortization Schedules
Year of Consolidation 2

Account Adjustments To Be Amortized	Life	Annual Amount	Current Year	Prior Years	Total	Key
Buildings A1	20	$ 4,000	$ 4,000	$ 4,000	$ 8,000	
Equipment A2	5	6,080	6,080	6,080	12,160	
Total amortizations		$10,080	$10,080	$10,080	$ 20,160	

Intercompany inventory profit deferral:

	Parent Amount	Parent Percent	Parent Profit	Sub. Amount	Sub. Percent	Sub. Profit
Beginning	$20,000	30%	$6,000	—	0%	—
Ending	25,000	30%	7,500	—	0%	—

Intercompany fixed asset profit deferral:

	Parent	Subsidiary
Original profit	—	$30,000
Year of sale	2	1
Realized in prior years	—	$5,000
Balance, start of year	—	$25,000
Realized in current year	—	$5,000

Subsidiary Salsa Income Distribution

Internally generated net income	$20,000
Realized gain	5,000
Adjusted income	$25,000
NCI share	× 20%
NCI	$ 5,000

Parent Polka Income Distribution

Buildings depreciation	$4,000	Internally generated net income	$165,000
Equipment depreciation	6,080	80% share of Salsa adjusted income of $25,000	20,000
Ending inventory profit	7,500	Beginning inventory profit	6,000
		Controlling interest	$173,420

Problem 4-8 continues on page 224.

Problem 4-8, Continued

Year of Consolidation 2

	Trial Balance Polka	Trial Balance Salsa	Eliminations and Adjustments Dr.	Eliminations and Adjustments Cr.	Consolidated Income Statement	NCI	Controlling Retained Earnings	Consolidated Balance Sheet
Cash	24,000	132,000						156,000
Accounts Receivable	90,000	45,000		(IA) 15,000				120,000
Inventory	120,000	56,000		(EI) 7,500				168,500
Land	100,000	60,000						160,000
Investment in Salsa	472,000			(CY1) 16,000				
			(CY2) 8,000					
				(EL) 193,600				
				(D) 270,400				
Buildings	800,000	200,000	(D1) 80,000					1,080,000
Accumulated Depreciation	(220,000)		(65,000)	(A1)	8,000			(293,000)
Equipment	150,000	72,000	(D2) 30,400	(F1) 30,000				222,400
Accumulated Depreciation	(90,000)		(46,000)	(A2)	12,160			
			(F1) 5,000					
			(F2) 5,000					(138,160)
Goodwill			(D3) 160,000					160,000
Accounts Payable	(60,000)		(102,000)	(IA) 15,000				(147,000)
Bonds Payable		(100,000)						(100,000)
Discount (premium)								
Common Stock—Salsa		(10,000)	(EL) 8,000				(2,000)	
Paid-In Capital in Excess of Par—Salsa		(90,000)	(EL) 72,000				(18,000)	
Retained Earnings—Salsa		(142,000)	(EL) 113,600					
			(F1) 5,000			(23,400)		
Common Stock—Polka	(100,000)							(100,000)
Paid-In Capital in Excess of Par—Polka	(800,000)							(800,000)
Retained Earnings—Polka	(325,000)		(A1–A2) 10,080					
			(BI) 6,000					
			(F1) 20,000				(288,920)	
Sales	(800,000)		(350,000)	(IS) 100,000		(1,050,000)		
Cost of Goods Sold	450,000	208,500		(IS) 100,000				
			(EI) 7,500	(BI) 6,000	560,000			
Depreciation Expense—Buildings	30,000	7,500	(A1) 4,000		41,500			
Depreciation Expense—Equipment	15,000	8,000	(A2) 6,080					
				(F2) 5,000	24,080			
Other Expenses	160,000	98,000			258,000			

Interest Expense		8,000			8,000			
Gain on Fixed Asset Sale	(20,000)					(20,000)		
Subsidiary Income	(16,000)		(CY1)16,000					

Problem 4-8, Concluded

Year of Consolidation 2
(Concluded)

	Trial Balance		Eliminations and Adjustments			Consolidated Income Statement	NCI	Controlling Retained Earnings	Consolidated Balance Sheet
	Polka	Salsa	Dr.		Cr.				
Dividends Declared—Salsa		10,000		(CY2)	8,000		2,000		
Dividends Declared—Polka	20,000							20,000	
Totals	0	0	671,660		671,660				
Consolidated Net Income						(178,420)			
NCI Share						5,000	(5,000)		
Controlling Share						173,420		(173,420)	
NCI							(46,400)		
						(46,400)			
Controlling Retained Earnings								(442,340)	
						(442,340)			
Totals									0

Eliminations and Adjustments:

(CY1) Current-year subsidiary income.
(CY2) Current-year dividend.
(EL) Eliminate controlling interest in subsidiary equity.
(D) Distribute excess.
(A) Amortize excess.
(IS) Eliminate intercompany sales during current period.
(IA) Eliminate intercompany unpaid trade accounts.
(BI) Defer beginning inventory profit.
(EI) Defer ending inventory profit.
(F1) Fixed asset profit at beginning of year.
(F2) Fixed asset profit realized.

PROBLEM 4-9

Pettie Corporation and Subsidiary Sunny Corporation
Worksheet for Consolidated Financial Statements
For Year Ended December 31, 20X2

	Trial Balance		Eliminations and Adjustments		Consolidated Income Statement	NCI	Controlling Retained Earnings	Consolidated Balance Sheet
	Pettie	Sunny	Dr.	Cr.				
Cash	75,000	45,500						120,500
Accounts and Other Current Receivables	410,900	170,000		(CY3) 900				
				(LN1) 5,000				
				(LN1) 100,000				
				(IA) 90,000				385,000
Inventory	920,000	739,400		(EI) 7,500				1,651,900
Property, Plant, and Equipment (net)	1,000,000	400,000						1,400,000
Investment in Sunny Corporation	1,200,000		(CV) 45,000	(EL) 765,000				
				(D) 480,000				
Goodwill			(D) 480,000					480,000
Accounts Payable and Other Current Liabilities	(140,000)		(305,900) (CY3) 900					
			(LN1) 5,000					
			(LN1) 100,000					
			(IA) 90,000					(250,000)
Common Stock—Pettie	(500,000)							
	(500,000)							
Retained Earnings—Pettie	(2,800,000)			(CV)	45,000			(2,845,000)
Common Stock—Sunny		(200,000)	(EL)	180,000			(20,000)	
Retained Earnings—Sunny		(650,000)	(EL)	585,000			(65,000)	
Dividends Declared		1,000		(CY2) 900		100		
Sales	(2,000,000)		(650,000) (IS)	300,000		(2,350,000)		
Dividend Income	(900)		(CY2) 900					
Interest Expense		5,000		(LN2) 5,000				
Interest Income	(5,000)		(LN2) 5,000					
Cost of Goods Sold	1,500,000	400,000	(EI) 7,500	(IS) 300,000	1,607,500			
Other Expenses	340,000	45,000			385,000			
Total	0	0	1,799,300	1,799,300				
Consolidated Net Income					(357,500)			
NCI (see distribution schedule)					20,000	(20,000)		
Controlling Interest (see distribution schedule)					337,500		(337,500)	
Total NCI						(104,900)		
					(104,900)			
Controlling Retained Earnings							(3,182,500)	
					(3,182,500)			
Totals								0

Problem 4-9, Concluded

Eliminations and Adjustments:

(CV) Adjust investment for change in Sunny retained earnings, 90% × $50,000 = $45,000.
(CY2) Eliminate the entry recording the parent's share of the subsidiary's cash dividend.
(CY3) Eliminate the intercompany dividend payable and receivable.
(EL) Eliminate the parent's (90%) share of Sunny Corporation equity against the investment.
(D) Distribute excess according to the determination and distribution schedule.
$1,200,000 – ($800,000 × 90%) = $480,000 goodwill.
(LN1) Eliminate intercompany note, interest payable and receivable.
(LN2) Eliminate intercompany interest expense and income (10% × 1/2 × $100,000).
(IS) Eliminate intercompany sales of $300,000.
(EI) Eliminate intercompany profit of $7,500 (10% × $300,000 × 25%) in the ending inventory.
(IA) Eliminate intercompany trade debt of $90,000.

Subsidiary Sunny Corporation Income Distribution

	Internally generated net income	$200,000
	Adjusted income	$200,000
	NCI share	× 10%
	NCI	$ 20,000

Parent Pettie Corporation Income Distribution

Unrealized profit in ending inventory	$7,500	Internally generated net income	$165,000
		90% × Sunny adjusted income of $200,000	180,000
		Controlling interest	$337,500

Determination and Distribution of Excess Schedule

Price paid		$1,200,000	
Stockholders' equity:			
Common stock	$200,000		
Retained earnings	600,000		
Total equity	$800,000		
Ownership interest	× 90%	720,000	
Goodwill		$ 480,000	Dr.

PROBLEM 4-10

Peanut Company and Subsidiary Sam Company
Worksheet for Consolidated Financial Statement
For Year Ended December 31, 20X2

	Trial Balance		Eliminations and Adjustments				Consolidated Income		Controlling Retained	Consolidated Balance
	Peanut	Sam		Dr.		Cr.	Statement	NCI	Earnings	Sheet
Inventory, December 31	130,000	50,000			(EI)	5,000				175,000
Other Current Assets	241,000	235,000								476,000
Investment in Sam Company	308,000		(CY2)	16,000	(CY1)	84,000				
					(EL)	200,000				
					(D)	40,000				
Other Long-Term Investments	20,000									20,000
Land	140,000	80,000								220,000
Buildings and Equipment	375,000	200,000	(D2)	20,000	(F1)	15,000				580,000
Accumulated Depreciation	(120,000)		(30,000)	(F2)		3,000 (A2)	10,000			
(157,000)										
Goodwill			(D3)	10,000						10,000
Other Intangibles		20,000								20,000
Current Liabilities	(150,000)		(70,000)							
(220,000)										
Bonds Payable		(100,000)								
(100,000)										
Other Long-Term Liabilities	(200,000)		(50,000)							
(250,000)										
Common Stock—Peanut	(200,000)									
(200,000)										
Other Paid-In Capital—Peanut	(100,000)									
(100,000)										
Retained Earnings—Peanut	(320,000)			(D1)	10,000					(282,000)
			(A2)	5,000						
			(BI)	8,000						
			(F1)	15,000						
Common Stock—Sam		(50,000)	(EL)		40,000				(10,000)	
Other Paid-In Capital—Sam		(50,000)	(EL)		40,000				(10,000)	
Retained Earnings—Sam		(150,000)	(EL)		120,000				(28,000)	
			(BI)	2,000						
Net Sales	(600,000)		(315,000)	(IS)		40,000		(875,000)		
Cost of Goods Sold	350,000	150,000	(EI)	5,000	(BI)	10,000				
					(IS)	40,000	455,000			
Operating Expenses	150,000	60,000	(A2)	5,000	(F2)	3,000	212,000			
Subsidiary Income	(84,000)		(CY1)	84,000						
Dividends Declared—Peanut	60,000								60,000	
Dividends Declared—Sam		20,000			(CY2)	16,000		4,000		
Total	0	0		423,000		423,000				

Consolidated Net Income	(208,000)			
To NCI (see distribution schedule)	22,000	(22,000)		
To Controlling Interest (see distribution schedule)	186,000		(186,000)	
Total NCI		(66,000)		(66,000)
Retained Earnings—Controlling Interest, December 31, 20X2			(408,000)	(408,000)
Totals				0

Problem 4-10, Continued

Eliminations and Adjustments:

(CY1) Eliminate the current-year entries made in the investment account and in the subsidiary income account.

(CY2) Eliminate parent's share of subsidiary dividends.

(EL) Eliminate 80% of the subsidiary Sam Company equity balances at the beginning of the year against the investment account.

(D) Allocate the $40,000 excess of cost over book value to Inventory, Equipment, and Goodwill. The $10,000 (80% × $12,500) write-up to inventory is charged to parent's retained earnings because FIFO is used. The $20,000 (80% × $25,000) write-up to Equipment is charged to Buildings and Equipment. The $10,000 remaining excess is charged to Goodwill.

(A2) Amortize the equipment write-up over four years, with $5,000 for 20X1 charged to Retained Earnings, and $5,000 for 20X2 to Operating Expenses.

(BI) Eliminate the $10,000 ($20,000 × 50%) of gross profit in the beginning inventory. Allocate to NCI and controlling interest (20/80).

(IS) Eliminate the entire intercompany sales of $40,000.

(EI) Eliminate the $5,000 of gross profit in the ending inventory.

(F1) Eliminate the $15,000 20X1 gain on sale of equipment and restore the equipment account to cost.

(F2) Eliminate the $3,000 of excess depreciation for 20X2 on the transferred equipment.

Determination and Distribution of Excess Schedule

Price paid for investment		$200,000			
Less book value of interest acquired:					
Common stock, par	$ 50,000				
Paid-in capital in excess of par	50,000				
Retained earnings	100,000				
Total stockholders' equity	$200,000				
Interest acquired	× 80%	160,000		Amortization	
Excess of cost over book value (debit)		$ 40,000		Periods	Amortization
Adjustment of priority accounts:					
Inventory		$ 10,000	debit D1	1	$10,000
Adjustment of nonpriority accounts:					
Equipment		20,000	debit D2	4	5,000
Goodwill		10,000	debit D3		
Total adjustments		$ 40,000			

Problem 4-10, Concluded

Subsidiary Sam Company Income Distribution

Ending inventory profit	$5,000	Internally generated net income	$105,000
		Beginning inventory profit	10,000
		Adjusted income	$110,000
		NCI share	× 20%
		NCI	$ 22,000

Parent Peanut Company Income Distribution

Equipment depreciation	$5,000	Internally generated net income	$100,000
		Realized gain on equipment sale	3,000
		80% × Sam adjusted income of $110,000	88,000
		Controlling interest	$186,000

PROBLEM 4-11

Peanut Company and Subsidiary Sam Company
Worksheet for Consolidated Financial Statement
For Year Ended December 31, 20X2

	Trial Balance		Eliminations and Adjustments				Consolidated Income		Controlling Retained	Consolidated Balance
	Peanut	Sam		Dr.		Cr.	Statement	NCI	Earnings	Sheet
Inventory, December 31	130,000	50,000			(EI)	5,000				175,000
Other Current Assets	241,000	235,000								476,000
Investment in Sam Company	200,000		(CV)	40,000	(EL)	200,000				
					(D)	40,000				
Other Long-Term Investments	20,000									20,000
Land	140,000	80,000								220,000
Buildings and Equipment	375,000	200,000	(D2)	20,000	(F1)	15,000				580,000
Accumulated Depreciation	(120,000)		(30,000)			(A2)	10,000			
			(F2)	3,000						(157,000)
Goodwill			(D3)	10,000						10,000
Other Intangibles		20,000								20,000
Current Liabilities	(150,000)		(70,000)							
	(220,000)									
Bonds Payable		(100,000)								
	(100,000)									
Other Long-Term Liabilities	(200,000)		(50,000)							
	(250,000)									
Common Stock—Peanut	(200,000)									
	(200,000)									
Other Paid-In Capital—Peanut	(100,000)									
	(100,000)									
Retained Earnings—Peanut	(280,000)			(D1)	10,000	(CV)	40,000			
			(A2)	5,000						
			(BI)	8,000						
			(F1)	15,000						(282,000)
Common Stock—Sam		(50,000)		(EL)	40,000				(10,000)	
Other Paid-In Capital—Sam		(50,000)		(EL)	40,000				(10,000)	
Retained Earnings—Sam		(150,000)		(EL)	120,000				(28,000)	
			(BI)	2,000						
Net Sales	(600,000)		(315,000)	(IS)		40,000		(875,000)		
Cost of Goods Sold	350,000	150,000	(EI)	5,000	(BI)	10,000	455,000			
					(IS)	40,000				
Operating Expenses	150,000	60,000	(A2)	5,000	(F2)	3,000	212,000			
Dividend Income	(16,000)		(CY2)	16,000						
Dividends Declared—Peanut	60,000								60,000	

Dividends Declared—Sam	.....	20,000	.....	(CY2)	16,000	.....	4,000	.....	.....
Total	0	0	379,000		379,000	.....	.....	.....	.....
Consolidated Net Income						(208,000)	.....	.....	.....
To NCI (see distribution schedule)						22,000	(22,000)	.....	.....
To Controlling Interest (see distribution schedule)						186,000	.....	(186,000)	.....
Total NCI							(66,000)	.....	
						(66,000)			
Retained Earnings—Controlling Interest, December 31, 20X2								(408,000)	
						(408,000)			
Totals									0

Problem 4-11, Continued

Determination and Distribution of Excess Schedule

Price paid for investment		$200,000			
Less book value of interest acquired:					
Common stock	$ 50,000				
Paid-in capital in excess of par.....	50,000				
Retained earnings	100,000				
Total stockholders' equity	$200,000				
Interest acquired	× 80%	160,000		Amortization	
Excess of cost over book value (debit)...		$ 40,000		Periods	Amortization
Adjustment of priority accounts:					
Inventory ($12,500 × 80%).....		$ 10,000	debit D1	1	$10,000
Adjustment of nonpriority accounts:					
Building and equipment ($25,000 × 80%)		20,000	debit D2	4	5,000
Goodwill		10,000			
Total adjustments		$ 40,000			

Eliminations and Adjustments:

(CV) Convert to the single equity method as of January 1, 20X2 ($50,000 change in Sam's Retained Earnings × 80%).

(CY2) Eliminate the current-year dividend income of Peanut against dividends declared by Sam.

(EL) Eliminate 80% of the Sam Company equity balances at the beginning of the year against the investment account.

(D) Allocate the $40,000 excess of cost over book value to Inventory, Equipment, and Goodwill. The $10,000 (80% of $12,500) write-up to inventory is charged to parent's Retained Earnings because FIFO is used. The $20,000 (80% of $25,000) write-up to Equipment is charged to Buildings and Equipment. The $10,000 remaining excess is charged to Goodwill.

(A2) Amortize the Equipment write-up over four years, with $5,000 for 20X1 charged to Retained Earnings and $5,000 for 20X2 to Operating Expenses.

(BI) Eliminate the $10,000 of gross profit in the beginning inventory. Allocate to NCI and controlling interest.

(IS) Eliminate the entire intercompany sales of $40,000.

(EI) Eliminate the $5,000 of gross profit in the ending inventory.

(F1) Eliminate the $15,000 20X1 gain on sale of equipment and restore the equipment account to cost.

(F2) Eliminate the $3,000 of excess depreciation for 20X2 on the transferred equipment.

Problem 4-11, Concluded

Subsidiary Sam Company Income Distribution

Ending inventory profit	$5,000	Internally generated net income	$105,000
		Beginning inventory profit	10,000
		Adjusted income	$110,000
		NCI share	× 20%
		NCI	$ 22,000

Parent Peanut Company Income Distribution

Equipment depreciation	$5,000	Internally generated net income	$100,000
		Realized gain on equipment sale	3,000
		80% × Sam adjusted income of $110,000	88,000
		Controlling interest	$186,000

PROBLEM 4-12

(1)

Intercompany Merchandise Sales
Fixed Asset Profit

Common Information:	
Ownership interest	80%
Price paid (including direct acquisition costs)	$300,000
Year of consolidation (1 = year of purchase)	2

Simple Company's Balance Sheet before Purchase

	Book Value	Fair Value	Life		Book Value	Fair Value	Life
Priority assets:							
Accounts receivable	50,000	50,000	1	Accounts payable	60,000	60,000	
Inventory	60,000	60,000	1	Bonds payable	200,000	200,000	
Total priority assets	**110,000**	**110,000**		**Total liabilities**	**260,000**	**260,000**	
Nonpriority assets:							
Land	100,000	100,000		Stockholders' equity:			
Buildings	150,000	200,000	20	Common stock, $1 par	10,000		
Accumulated depreciation	(50,000)			Paid-in capital in			
Equipment	100,000	120,000	5	excess of par	90,000		
Accumulated depreciation	(30,000)			Retained earnings	60,000		
Total nonpriority assets	**270,000**	**420,000**		Total equity	160,000		
Existing goodwill	40,000						
Total assets	**420,000**	**530,000**		**Value of net assets**	**160,000**	**270,000**	

Intercompany Merchandise Information

	Parent Sales	Parent Percent	Subsidiary Sales	Subsidiary Percent
Current-year sales	$60,000		$30,000	
Unpaid account balance, year-end	8,000		6,000	
Beginning inventory	14,000	40%	12,000	25%
Ending inventory	12,000	35%	16,000	30%

Intercompany Equipment Sales

	By Parent	By Subsidiary
Profit amount	$40,000	$24,000
Life of asset	8	6
Annual depreciation adjustment	$5,000	$4,000
Year of sale (assume beginning of year)	1	2

Problem 4-12, Continued

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$(150,000)	$(120,000)	$(120,000)
Nonpriority accounts	420,000	336,000	216,000

Price Analysis

Price	$ 300,000	
Assign to priority accounts	(120,000)	full value
Assign to nonpriority accounts	336,000	full value
Goodwill	84,000	

Determination and Distribution of Excess Schedule

Price paid for investment		$300,000			
Less book value interest acquired:					
Common stock	$ 10,000				
Paid-in capital in excess of par	90,000				
Retained earnings	60,000				
Total equity	$160,000				
Interest acquired	× 80%	128,000			
Excess of cost over book value (debit)		$172,000		Amortization Periods	Amortization
Buildings		$ 80,000	debit D1	20	$4,000
Equipment		40,000	debit D2	5	8,000
Goodwill		52,000	debit D3		
Total adjustments		$172,000			

Problem 4-12, Continued

(2)

Amortization Schedules
Year of Consolidation 2

Account Adjustments To Be Amortized	Life	Annual Amount	Current Year	Prior Years	Total	Key
Buildings A1	20	$ 4,000	$ 4,000	$ 4,000	$ 8,000	
Equipment A2	5	8,000	8,000	8,000	16,000	
Total amortizations		$12,000	$12,000	$12,000	$24,000	

Intercompany inventory profit deferral:

	Parent Amount	Parent Percent	Parent Profit	Sub. Amount	Sub. Percent	Sub. Profit
Beginning	$14,000	40%	$5,600	$12,000	25%	$3,000
Ending	12,000	35%	4,200	16,000	30%	4,800

Intercompany fixed asset profit deferral:

	Parent	Subsidiary
Original profit	$40,000	$24,000
Year of sale	1	2
Realized in prior years	$5,000	—
Balance, start of year	$35,000	$24,000
Realized in current year	$5,000	$4,000

Subsidiary Simple Income Distribution

Ending inventory profit	$ 4,800	Internally generated net income	$37,500
Gain on sale of equipment	24,000	Beginning inventory profit	3,000
		Realized gain	4,000
		Adjusted income	$15,700
		NCI share	× 20%
		NCI	$ 3,140

Parent Purple Income Distribution

Buildings depreciation	$4,000	Internally generated net income	$155,000
Equipment depreciation	8,000	80% share of Simple adjusted income of $15,700	12,560
Ending inventory profit	4,200	Realized gain	5,000
		Beginning inventory profit	5,600

Controlling interest	$161,960

Problem 4-12 continues on page 238.

Problem 4-12, Continued

Year of Consolidation 2

	Trial Balance Purple	Trial Balance Simple	Eliminations and Adjustments Dr.		Eliminations and Adjustments Cr.		Consolidated Income Statement	NCI	Controlling Retained Earnings	Consolidated Balance Sheet
Cash	92,400	65,500								157,900
Accounts Receivable	130,000	36,000		(IA)	14,000					152,000
Inventory	105,000	76,000		(EI)	9,000					172,000
Land	100,000	100,000								200,000
Investment in Simple	387,600			(CY1)	30,000					
			(CY2) 8,000							
				(EL)	193,600					
				(D)	172,000					
Buildings	800,000	150,000	(D1) 80,000							1,030,000
Accumulated Depreciation	(250,000)		(60,000)			(A1)	8,000			(318,000)
Equipment	210,000	220,000	(D2) 40,000	(F1)	64,000					406,000
Accumulated Depreciation	(115,000)		(80,000)			(A2)	16,000			
			(F1) 5,000							
			(F2) 9,000							(197,000)
Goodwill		40,000	(D3) 52,000							92,000
Accounts Payable	(70,000)		(78,000)	(IA)	14,000					(134,000)
Bonds Payable		(200,000)								(200,000)
Discount (premium)										
Common Stock—Simple		(10,000)	(EL)	8,000					(2,000)	
Paid-In Capital in Excess of Par—Simple		(90,000)	(EL)	72,000					(18,000)	
Retained Earnings—Simple		(142,000)	(EL)	113,600						
			(BI) 600							
								(27,800)		
Common Stock—Purple	(100,000)									(100,000)
Paid-In Capital in Excess of Par—Purple	(800,000)									(800,000)
Retained Earnings—Purple	(325,000)		(A1–A2) 12,000							
			(BI) 8,000							
			(F1) 35,000						(270,000)	
Sales	(800,000)		(350,000)	(IS)	90,000			(1,060,000)		
Cost of Goods Sold	450,000	208,500		(IS)	90,000					
			(EI) 9,000	(BI)	8,600		568,900			
Depreciation Expense—Buildings	30,000	5,000	(A1) 4,000				39,000			
Depreciation Expense—Equipment	25,000	23,000	(A2) 8,000							
				(F2)	9,000		47,000			
Other Expenses	140,000	92,000					232,000			

Interest Expense		8,000				8,000			
Gain on Fixed Asset Sale		(24,000)	(F1)	24,000					
Subsidiary Income	(30,000)		(CY1)	30,000					

Problem 4-12, Concluded

Year of Consolidation 2
(Concluded)

	Trial Balance		Eliminations and Adjustments			Consolidated Income Statement	NCI	Controlling Retained Earnings	Consolidated Balance Sheet
	Purple	Simple	Dr.		Cr.				
Dividends Declared—Simple		10,000		(CY2)	8,000		2,000		
Dividends Declared—Purple	20,000							20,000	
Totals	0	0	622,200		622,200				
Consolidated Net Income						(165,100)			
NCI Share						3,140		(3,140)	
Controlling Share						(161,960)			(161,960)
NCI							(48,940)		
						(48,940)			
Controlling Retained Earnings								(411,960)	
								(411,960)	
Totals									0

Eliminations and Adjustments:

(CY1) Current-year subsidiary income.
(CY2) Current-year dividend.
(EL) Eliminate controlling interest in subsidiary equity.
(D) Distribute excess.
(A) Amortize excess.
(IS) Eliminate intercompany sales during current period.
(IA) Eliminate intercompany unpaid trade accounts.
(BI) Defer beginning inventory profit.
(EI) Defer ending inventory profit.
(F1) Fixed asset profit at beginning of year.
(F2) Fixed asset profit realized.

PROBLEM 4-13

(1)

Intercompany Merchandise Sales

Common Information:	
Ownership interest	80%
Price paid (including direct acquisition costs)	$300,000
Year of consolidation (1 = year of purchase)	3

Simple Company's Balance Sheet before Purchase

	Book Value	Fair Value	Life		Book Value	Fair Value	Life
Priority assets:							
Accounts receivable	50,000	50,000	1	Accounts payable	60,000	60,000	1
Inventory	60,000	60,000		1 Bonds payable	200,000	200,000	5
Total priority assets	**110,000**	**110,000**		**Total liabilities**	**260,000**	**260,000**	
Nonpriority assets:							
Land	100,000	100,000		Stockholders' equity:			
Buildings	150,000	200,000	20	Common stock, $1 par	10,000		
Accumulated depreciation	(50,000)			Paid-in capital in			
Equipment	100,000	120,000	5	excess of par	90,000		
Accumulated depreciation	(30,000)			Retained earnings	60,000		
Total nonpriority assets	**270,000**	**420,000**		Total equity	160,000		
Existing goodwill	40,000						
Total assets	**420,000**	**530,000**		**Value of net assets**	**160,000**	**270,000**	

Intercompany Merchandise Information

	Parent Sales	Parent Percent	Subsidiary Sales	Subsidiary Percent
Current-year sales	$60,000		$30,000	
Unpaid account balance, year-end	8,000		6,000	
Beginning inventory	12,000	35%	16,000	30%
Ending inventory	10,000	40%	20,000	35%

Intercompany Equipment Sales

	By Parent	By Subsidiary
Profit amount	$40,000	$24,000
Life of asset	8	6
Annual depreciation adjustment	$5,000	$4,000
Year of sale (assume beginning of year)	1	2

Problem 4-13, Continued

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$(150,000)	$(120,000)	$(120,000)
Nonpriority accounts	420,000	336,000	216,000

Price Analysis		
Price	$ 300,000	
Assign to priority accounts	(120,000)	full value
Assign to nonpriority accounts	336,000	full value
Goodwill	84,000	

Determination and Distribution of Excess Schedule

Price paid for investment		$300,000		
Less book value interest acquired:				
Common stock	$ 10,000			
Paid-in capital in excess of par	90,000			
Retained earnings	60,000			
Total equity	$160,000			
Interest acquired	× 80%	128,000		
Excess of cost over book value (debit)		$172,000	Amortization Periods	Amortization
Buildings		$ 80,000	20 debit D1	$4,000
Equipment		40,000	5 debit D2	8,000
Goodwill		52,000	debit D3	
Total adjustments		$172,000		

Amortization Schedules
Year of Consolidation 3

Account Adjustments To Be Amortized	Life	Annual Amount	Current Year	Prior Years	Total	Key
Buildings A1	20	$ 4,000	$ 4,000	$ 8,000	$ 12,000	
Equipment A2	5	8,000	8,000	16,000	24,000	
Total amortizations		$12,000	$12,000	$24,000	$36,000	

Intercompany inventory profit deferral:

	Parent Amount	Parent Percent	Parent Profit	Sub. Amount	Sub. Percent	Sub. Profit
Beginning	$12,000	35%	$4,200	$16,000	30%	$4,800
Ending	10,000	40%	4,000	20,000	35%	7,000

Problem 4-13, Continued

Intercompany fixed asset profit deferral:

	Parent	Subsidiary
Original profit	$40,000	$24,000
Year of sale	1	2
Realized in prior years	$10,000	$4,000
Balance, start of year	$30,000	$20,000
Realized in current year	$5,000	$4,000

Subsidiary Simple Income Distribution

Ending inventory profit	$7,000	Internally generated net income	$80,000
		Beginning inventory profit	4,800
		Realized gain	4,000
		Adjusted income	$81,800
		NCI share	× 20%
		NCI	$16,360

Parent Purple Income Distribution

Buildings depreciation	$4,000	Internally generated net income	$115,000
Equipment depreciation	8,000	80% share of Simple adjusted income of $81,800	65,440
Ending inventory profit	4,000	Realized gain	5,000
		Beginning inventory profit	4,200
		Controlling interest	$173,640

Problem 4-13 continues on page 244.

Problem 4-13, Continued

(2) Year of Consolidation 3

	Trial Balance Purple	Trial Balance Simple	Eliminations and Adjustments Dr.		Eliminations and Adjustments Cr.	Consolidated Income Statement	NCI	Controlling Retained Earnings	Consolidated Balance Sheet
Cash	195,400	53,500							248,900
Accounts Receivable	140,000	53,000		(IA)	14,000				179,000
Inventory	140,000	81,000		(EI)	11,000				210,000
Land	100,000	60,000							160,000
Investment in Simple	443,600			(CY1)	64,000				
			(CY2) 8,000						
				(EL)	215,600				
				(D)	172,000				
Buildings	800,000	150,000	(D1) 80,000						1,030,000
Accumulated Depreciation	(280,000)		(65,000)		(A1)	12,000			(357,000)
Equipment	150,000	220,000	(D2) 40,000	(F1)	64,000				346,000
Accumulated Depreciation	(115,000)		(103,000)		(A2)	24,000			
			(F1) 14,000						
			(F2) 9,000						(219,000)
Goodwill		40,000	(D3) 52,000						92,000
Accounts Payable	(25,000)		(50,000)	(IA)	14,000				(61,000)
Bonds Payable		(100,000)							(100,000)
Discount (premium)									
Common Stock—Simple		(10,000)	(EL)	8,000				(2,000)	
Paid-In Capital in Excess of Par—Simple		(90,000)	(EL)	72,000				(18,000)	
Retained Earnings—Simple		(169,500)	(EL)	135,600					
			(BI) 960						
			(F1) 4,000				(28,940)		
Common Stock—Purple	(100,000)								(100,000)
Paid-In Capital in Excess of Par—Purple	(800,000)								(800,000)
Retained Earnings—Purple	(510,000)		(A1–A2) 24,000						
			(BI) 8,040						
			(F1) 46,000					(431,960)	
Sales	(850,000)		(500,000)	(IS)	90,000		(1,260,000)		
Cost of Goods Sold	480,000	290,000		(IS)	90,000				
			(EI) 11,000	(BI)	9,000	682,000			
Depreciation Expense—Buildings	30,000	5,000	(A1) 4,000			39,000			
Depreciation Expense—Equipment	15,000	23,000	(A2) 8,000						
				(F2)	9,000	37,000			

Other Expenses	210,000	94,000			304,000			
Interest Expense		8,000			8,000			
Subsidiary Income	(64,000)		(CY1)64,000					

Problem 4-13, Concluded

Year of Consolidation 3
(Concluded)

	Trial Balance		Eliminations and Adjustments			Consolidated Income		Controlling Retained	Consolidated Balance
	Purple	Simple	Dr.		Cr.	Statement	NCI	Earnings	Sheet
Dividends Declared—Simple		10,000		(CY2)	8,000		2,000		
Dividends Declared—Purple	40,000							40,000	
Totals	0	0	692,600		692,600				
Consolidated Net Income						(190,000)			
NCI Share						16,360		(16,360)	
Controlling Share						173,640			(173,640)
NCI							(63,300)		
						(63,300)			
Controlling Retained Earnings								(565,600)	
							(565,600)		
Totals									0

Eliminations and Adjustments:

(CY1) Current-year subsidiary income.
(CY2) Current-year dividend.
(EL) Eliminate controlling interest in subsidiary equity.
(D) Distribute excess.
(A) Amortize excess.
(IS) Eliminate intercompany sales during current period.
(IA) Eliminate intercompany unpaid trade accounts.
(BI) Defer beginning inventory profit.
(EI) Defer ending inventory profit.
(F1) Fixed asset profit at beginning of year.
(F2) Fixed asset profit realized.

CASE

CASE 4-1

To: Harvey Henderson

From: Student

Concerning: Cool Glass accounting issues

Harvey, you are a minority shareholder and can look only to the income statement of the separate Henderson Window Company. You have no claim on the assets of the consolidated company. The controlling interest may well take actions that are wise for the consolidated controlling interest, but they may not be in your best interest.

The price charged for glass is a direct part of Henderson's cost of sales. A higher price reduces Henderson income and thus the 30% of Henderson income available to Henderson shareholders. The higher price increases the income of Cool Glass, all the benefits of which go to Cool Glass shareholders. In consolidation, the price charged is eliminated; only the purchases from the outside and the sales to the outside remain in the consolidated statements. The distribution of the combined income of the companies becomes more favorable to Cool Glass shareholders. They end up getting 100% of Cool Glass's income and 70% of Henderson's income less the amortization of the goodwill on the 70% interest in Henderson.

The sale of the warehouse to Cool Glass has the same effect. Cool Glass will carry it at a lower price and reduced depreciation. The Henderson shareholders will get a smaller gain. Again, profit is shifted away from the minority interest. The comment on not needing a gain on the warehouse is in error. The consolidated statements prepared for the Cool Glass shareholders will not show a gain. The gain is deferred and realized in the periods the asset is used, as lower depreciation. From the consolidated viewpoint, the gain will not appear on the financial statements.

The payment for goodwill was not enjoyed by the Henderson shareholders and is no excuse for their being penalized by unfair intercompany prices. The goodwill was a payment for above-normal Henderson income expected in future periods. Cool Glass might decide to divert that income to its own operations, which leaves the Cool Glass shareholders unaffected. The Henderson shareholders are, however, adversely affected.

CHAPTER 5

UNDERSTANDING THE ISSUES

1. The first approach that could be used to reduce the overall consolidated interest cost but maintain the subsidiary as the debtor would have the parent advancing $1,000,000 to the subsidiary so that the subsidiary may retire the bonds. The former debt is retired, and a new long-term intercompany debt originates. The intercompany interest expense would be eliminated during the consolidation process. Another approach would have the parent purchasing the subsidiary bonds from outside parties and holding them as an investment. From a consolidated viewpoint, the debt is retired. Therefore, interest expense would be eliminated during the consolidation process.

2. At the 10% annual interest rate, an extraordinary loss on retirement of bonds will occur in the current year since the parent paid a premium to retire the subsidiary's bonds. In the current and future years, consolidated net income will be increased by the difference between interest expense and interest revenue. This amount represents the amortization of the premium paid by the parent. At the 13% annual interest rate, an extraordinary gain on retirement of bonds will occur in the current year since the parent paid a discount to retire the subsidiary's bonds. In the current and future years, consolidated net income will be reduced by the difference between interest revenue and interest expense. This amount represents the amortization of the discount paid by the parent to retire the bonds.

3. Since Company S was the original issuer of the bonds, it will absorb the extraordinary loss that results in the current year from the parent retiring the bonds at a premium. The noncontrolling interest will receive its share of this loss. In the current and future years, the subsidiary's income will be increased by the difference between interest expense and interest revenue. The noncontrolling interest will receive its share of this amount.

4. In the current year, consolidated net income will include an extraordinary gain on retirement of bonds of $5,000 ($100,000 – $95,000). In the current and each of the next 4 years, consolidated net income will be reduced by $1,000 ($5,000 ÷ 5 years), which represents amortization of the discount paid by the parent. In the current year, the NCI will receive $1,000 ($5,000 × 20%) of the extraordinary gain on the retirement of bonds. In the current and each of the next 4 years, NCI share of income will be reduced by $200 ($1,000 × 20%).

5.a.	Investing activities—Purchase of S Company ($800,000 – $50,000)	$(750,000)
b.	Investing activities—Purchase of S Company ($500,000 – $50,000)	$(450,000)
	Noncash financing activities—Issuance of notes payable	300,000
c.	Investing activities—Cash acquired in purchase of S Company	$ 50,000
	Noncash financing activities—Issuance of stock	800,000

6. Any amortizations of the $200,000 excess of cost over book value will need to be included in cash–operating activities as an adjustment to income. The means of purchasing S Company will not have an effect on the consolidated statement of cash flows in subsequent years.

7. a.	Investing activities—Purchase of S Company ($640,000 – $50,000)	$(590,000)
	Noncash financing activities—Noncontrolling interest	120,000
b.	Investing activities—Purchase of S Company ($400,000 – $50,000)	$(350,000)
	Noncash financing activities—Issuance of notes payable	240,000
	Noncash financing activities—Noncontrolling interest	120,000

c. Investing activities—Cash acquired in purchase of S Company..... $ 50,000
Noncash financing activities—Issuance of stock 640,000
Noncash financing activities—Noncontrolling interest 120,000

8. a. Consolidated basic EPS = ($200,000 + $60,000) ÷ 100,000 shares = $2.60
b. Consolidated basic EPS = [$200,000 + (80% × $60,000)] ÷ 100,000 shares = $2.48

9. a. Consolidated DEPS = [$200,000 + (40,000 × $1.43)] ÷ 100,000 shares = $2.57
Subsidiary DEPS = $60,000 ÷ (40,000 + 2,000) = $1.43
b. Consolidated DEPS = [$200,000 + (40,000 × $1.50)] ÷ (100,000 + 2,000) = $2.55
Subsidiary DEPS = $60,000 ÷ 40,000 shares = $1.50
c. Consolidated DEPS = [$200,000 + (40,000 × $1.50)] ÷ (100,000 + 2,000) = $2.55
Subsidiary DEPS = $60,000 ÷ 40,000 shares = $1.50

10. a.

Company E net income	$ 40,000
Parent's share	× 30%
	$ 12,000
Less: Equipment amortization [$200,000 – ($500,000 × 30%)] ÷ 10.....	(5,000)
Investment income	$ 7,000

b.

Beginning balance	$200,000
Investment income	7,000
Less: Dividends ($10,000 × 30%)	(3,000)
Investment balance	$204,000

c. The investment balance is the cost of the investment plus the investor's share of the investee's undistributed income, less the amortization of the excess of the price paid over the investor's share of book value.

11. a.

Company E income	$ 50,000
Gain on sale of equipment	(20,000)
Realized gain ($20,000 ÷ 5)	4,000
	$ 34,000
Parent's share	× 30%
Investment income	$ 10,200

There is no further adjustment for the profit on the equipment.

b. Investment income = $50,000 × 30% = $15,000

Adjustment for equipment profit:

Gain on Sale of Equipment ($20,000 × 30%)...	6,000	
Deferred Gain		6,000
Deferred Gain ($6,000/5).....	1,200	
Realized Gain on Equipment Sale.....		1,200

12. a. Investment income = $10,000 dividends × 10% = $1,000
b. Investment income = [($100,000 × ½) × 10%] + [($100,000 × ½) × 25%] = $17,500
c. Investment income = [($100,000 × ½) × 30%] + ($10,000 dividends × 10%) = $16,000

13.

Cost of investment	$ 20,000
1995 – 1999 income, 25% × $200,000.....	50,000
2000 – 2004 loss, 25% × ($300,000).....	(75,000)
Unrecorded loss.....	$ (5,000)

2005 income, 25% × $30,000 – Unrecorded $5,000 loss = $2,500

Investment balance = ($5,000) – (25% × $30,000) = $2,500

EXERCISES

EXERCISE 5-1

It is desirable to refinance for two reasons. First, interest rates are down and it would be wise to lock in at the lower rate. Second, the parent firm can borrow funds at a lower interest rate. The simplest way to accomplish the refinancing is to have the parent incur the new debt and loan the proceeds to the subsidiary; the subsidiary would use the funds to retire its debt with an extraordinary gain on retirement being recognized that would flow to the consolidated statements. The parent would not only enjoy a lower interest rate, it could also structure the loan terms, including the maturity date, to meet its needs. The parent could decide what rate to charge Patel Industries. The rate charged would affect the reported income of Patel Industries and thus would impact the distribution of income between the noncontrolling and controlling interests. The intercompany debt would be eliminated in the preparation of consolidated statements.

Marcus could also incur new debt and use the proceeds to purchase Patel Industries' outstanding bonds. The bonds would remain as debt on the separate statements of Patel Industries. The bonds would also appear as an investment on the books of Marcus. The intercompany bonds, however, would be eliminated in the consolidated statements. The consolidated income statement would show an extraordinary gain on retirement in the year of the intercompany purchase. The NCI would share in the gain, but this would be offset by interest adjustments in future periods.

EXERCISE 5-2

(a) (1) The consolidated income statement for 20X3 will include a gain on retirement of the bonds of $32,000 ($968,000 paid for $1,000,000 debt). The interest expense of $80,000 will be eliminated as will the interest revenue of $84,000 ($80,000 nominal + $4,000 discount amortization) recorded by the parent.

(2) The subsidiary income distribution schedule will get the benefit of the retirement gain of $32,000 in the year the bonds are purchased, but subsidiary income will be reduced each year for the amortization of the purchase discount recorded by the parent ($4,000). The net effect for 20X3 is $28,000. The NCI would receive 20% of this increase. The balance flows to the controlling interest.

(b) (1) The consolidated income statement includes nothing relative to the bonds. From a consolidated viewpoint, the bonds were retired in the prior period. The interest expense recorded by the subsidiary and the interest revenue recorded by the parent are eliminated.

(2) The income distribution of the subsidiary is reduced by $4,000 for the amortization of the purchase discount recorded by the parent. In the end, this adjustment is shared 20% by the NCI and 80% by the controlling interest.

EXERCISE 5-3

(1) Eliminations and Adjustments at December 31, 20X5:

Interest Revenue	8,700	
Bonds Payable	100,000	
Loss on Retirement	4,800‡	
Interest Expense		9,500
Investment in Bonds		101,500*
Discount on Bonds Payable		2,500**
Interest Payable	9,000	
Interest Receivable		9,000

Loss remaining at year-end:		
Carrying value of bonds at December 31, 20X5	$ 97,500**	
Investment in bonds at December 31, 20X5	101,500*	$ (4,000)
Loss amortized during the year:		
Interest revenue eliminated	$ 8,700	
Interest expense eliminated	9,500	(800)
Loss at January 1, 20X5		$ (4,800)

*$101,800 – $100,000 = $1,800 premium at 1/1/X5; $1,800 ÷ 6 years left = $300/yr. amortization; $101,800 – $300 = $101,500.

**$100,000 – $95,000 = $5,000 discount at 1/1/X1; $5,000 ÷ 10 years = $500/yr. amortization; $500 × 5 years = $2,500.
$95,000 + $2,500 = $97,500 book value at 12/31/X5.

‡$95,000 + ($500 × 4 years) = $97,000 book value at 1/1/X5; $97,000 – $101,800 investment at 1/1/X5 = $4,800 loss.

(2) Eliminations and Adjustments at December 31, 20X6:

Interest Revenue	8,700	
Bonds Payable	100,000	
Retained Earnings—Dien (80% × $4,000)	3,200	
Retained Earnings—Casper (20% × $4,000)	800	
Interest Expense		9,500
Investment in Bonds		101,200
Discount on Bonds Payable		2,000
Interest Payable	9,000	
Interest Receivable		9,000

Loss remaining at year-end:		
Carrying value of bonds at December 31, 20X6	$ 98,000	
Investment in bonds at December 31, 20X6	101,200	$ (3,200)
Loss amortized during the year:		
Interest revenue eliminated	$ 8,700	
Interest expense eliminated	9,500	(800)
Loss at January 1, 20X6		$ (4,000)

EXERCISE 5-4

Gain on retirement (January 2, 20X6):

Balance on issuer's books	$48,734
Less purchase price (cost to retire bonds)	47,513
Gain on retirement	$ 1,221

Schedule of interest adjustments:

Year Ending	Intercompany Interest, Effective Interest on Purchase (10%)	Recorded Interest, Effective Interest on Issuance (9%)	Interest Expense Adjustment to Issuer Income Distribution Schedule
12/31/X6	$4,751	$4,386	$ 365
12/31/X7	4,826	4,421	405
12/31/X8	4,909	4,459	450
			$1,220*

*Does not add to gain on retirement due to rounding.

EXERCISE 5-5

(1) Eliminations and Adjustments at December 31, 20X3:

Interest Revenue [(7% × $60,000) + ($6,400 ÷ 8)]	5,000	
Bonds Payable (60% × $100,000)	60,000	
Premium on Bonds Payable (60% × $700)	420	
Interest Expense [($4,200 – (60% × $100)]		4,140
Investment in Bonds (balance at year-end)		54,400
Gain on Retirement		6,880
Interest Payable	4,200	
Interest Receivable		4,200
Gain remaining at year-end:		
Carrying value of bonds at December 31, 20X3 (60% × $100,700)	$60,420	
Investment in bonds at December 31, 20X3	54,400	$6,020
Gain amortized during the year:		
Interest revenue eliminated	$ 5,000	
Interest expense eliminated	4,140	860
Gain at January 1, 20X3		$6,880

(2) Eliminations and Adjustments at December 31, 20X4:

Interest Revenue	5,000	
Bonds Payable	60,000	
Premium on Bonds Payable (60% × $600)	360	
Interest Expense		4,140
Investment in Bonds (balance at year-end)		55,200
Retained Earnings—Mirage		4,816
Retained Earnings—Carlton		1,204
Interest Payable	4,200	
Interest Receivable		4,200
Gain remaining at year-end:		
Carrying value of bonds at December 31, 20X4 (60% × $100,600)	$60,360	
Investment in bonds at December 31, 20X4	55,200	$5,160
Gain amortized during the year:		
Interest revenue eliminated	$ 5,000	
Interest expense eliminated	4,140	860
Remaining gain at January 1, 20X4		$6,020

EXERCISE 5-6

Partial Schedule of Bond Premium Amortization
12-Year, 8% Bonds Sold to Yield 7% (Lift)

Date	Cash Paid	Interest Expense	Premium Amortized	Carrying Amount of Bonds
January 1, 20X5	. . . . .	. . . . .	. . . . .	$107,943
January 1, 20X6	$8,000	$7,556	$444	107,499
January 1, 20X7	8,000	7,525	475	107,024
January 1, 20X8	8,000	7,492	508	106,516
January 1, 20X9	8,000	7,456	544	105,972

Partial Schedule of Bond Discount Amortization
12-Year, 8% Bonds Sold to Yield 9% (Shark)

Date	Cash Received	Interest Revenue	Discount Amortized	Carrying Value of Bonds
January 2, 20X8	. . . . .	. . . . .	. . . . .	$94,005
January 1, 20X9	$8,000	$8,460	$460	94,465

(1) Eliminations and Adjustments at December 31, 20X8:

Interest Revenue	8,460	
Bonds Payable	100,000	
Premium on Bonds Payable	5,972	
Gain on Retirement		12,511
Interest Expense		7,456
Investment in Bonds		94,465
Interest Payable	8,000	
Interest Receivable		8,000
Gain remaining at year-end:		
Carrying value of bonds at December 31, 20X8	$105,972	
Investment in bonds at December 31, 20X8	94,465	$11,507
Gain amortized during the year:		
Interest expense eliminated	$ 8,460	
Interest revenue eliminated	7,456	1,004
Gain at January 1, 20X8		$12,511

(2)

Subsidiary Lift Industries Income Distribution

Interest adjustment ($8,460 – $7,456)	$1,004	Internally generated net income	$500,000
		Retirement gain on bonds	12,511
		Adjusted income	$511,507
		NCI share	× 10%
		NCI	$ 51,151

EXERCISE 5-7

Batton Company and Subsidiary Ricky Company
Consolidated Statement of Cash Flows
For Year Ended December 31, 20X3

Cash flows from operating activities:		
Consolidated net income		$ 155,000
Adjustments to reconcile net income to net cash:		
Depreciation expense*	$120,000	
Increase in inventory	(94,000)	
Increase in current liabilities	14,000	
Total adjustments		40,000
Net cash provided by operating activities		$ 195,000
Cash flows from investing activities:		
Payment for purchase of Ricky Company, net of cash acquired		(480,000)
Cash flows from financing activities:		
Sale of stock	$300,000	
Dividend payments to controlling interests	(10,000)	
Dividend payments to NCI	(1,000)	
Net cash used in financing activities		289,000
Net increase in cash		$ 4,000
Cash at beginning of year		300,000
Cash at year-end		$ 304,000

*20X3 depreciation is equal to the difference between the sum of the December 31, 20X2, net plant asset balances [$800,000 (parent) and $550,000 (subsidiary), or $1,350,000], and the December 31, 20X3, consolidated net plant assets of $1,230,000.

Schedule of noncash investing activity:

Batton Company purchased 80% of the capital stock of Ricky Company for $500,000. In conjunction with the acquisition, liabilities were assumed and a noncontrolling interest created as follows:

Adjusted value of assets acquired ($710,000 book value + $100,000 excess)	$810,000	
Cash paid for capital stock	500,000	
Balance		$310,000
Liabilities assumed		210,000
Noncontrolling interest**		$100,000

**This is the NCI at the beginning of the year (date of acquisition). Current-year charges to the total NCI are included in the consolidated net income and the dividends paid.

Exercise 5- 7, Concluded

Determination and Distribution of Excess Schedule

Price paid for investment		$500,000
Less book value of interest acquired:		
Common stock, $10 par	$200,000	
Retained earnings	300,000	
Total stockholders' equity	$500,000	
Interest acquired	× 80%	400,000
Excess of cost over book value (debit)		$100,000
Goodwill	$100,000	

EXERCISE 5-8

Determination and Distribution of Excess Schedule

Price paid [(5,000 shares × $18) + $155,000 cash]	$245,000
Less interest acquired, 80% × $200,000	160,000
Excess of cost over book value (debit balance)	$ 85,000
Undervaluation of equipment, 80% × $20,000 (4-year life, $4,000 per year)	16,000
Dr.	
Goodwill	$ 69,000
Dr.	

Exercise 5-8, Concluded

Duckworth Corporation and Subsidiary Poladna Corporation
Consolidated Statement of Cash Flows
For Year Ended December 31, 20X3

Cash flows from operating activities:				
Consolidated net income			$	104,200
Adjustments to reconcile net income to net cash:				
Depreciation ($92,000 + $28,000 + $4,000)		$ 124,000		
Decrease in inventory		5,800		
Increase in current liabilities		5,000		
Total adjustments				134,800
Net cash provided by operating activities			$	239,000
Cash flows from investing activities:				
Cash payment for purchase of Poladna Corporation, net of cash acquired		$(125,000)		
Purchase of production equipment		(76,000)		
Net cash used in investing activities				(201,000)
Cash flows from financing activities:				
Decrease in long-term debt		(10,000)		
Dividends paid:				
By Duckworth Corporation	$(30,000)			
By Poladna, to NCI	(3,000)		(33,000)	
Net cash used in financing activities				(43,000)
Net decrease in cash			$	(5,000)
Cash at beginning of year				100,000
Cash at year-end			$	95,000

Schedule of noncash investing activity:

Duckworth Corporation purchased 80% of the capital stock of Poladna Corporation for $245,000. In conjunction with the acquisition, liabilities were assumed, stock was issued, and a noncontrolling interest was created as follows:

Adjusted value of assets acquired ($270,000 book value + $85,000 excess)	$355,000	
Cash paid for capital stock	155,000	$200,000
Stock issued (5,000 shares × $18)	$ 90,000	
Liabilities assumed	70,000	160,000
NCI ($200,000 × 20%)		$ 40,000

EXERCISE 5-9

(a) None, goodwill is not amortized:

Original cost	$700,000
Equity (80% × $650,000)	520,000
Goodwill	$180,000

(b) The cash from shares sold to the NCI shareholders, $90,000 (1,000 shares × $90), would appear as cash flow in the financing activities section. The 1,000 shares purchased by the parent would not appear in the cash flow statement.

(c) The bonds were held by parties outside the consolidated company. They are now retired by the consolidated company. The $102,000 would appear as a cash outflow in the financing activities section of the cash flow statement.

(d) This is a transaction within the consolidated company, and it would have no impact on the consolidated statement of cash flows.

EXERCISE 5-10

Investment in Like	4,000	
Investment Income		4,000
To record 20X7 investment income.		
Investment in Like	3,500	
Dividends Receivable	1,250	
Investment Income		4,750
To record 20X8 investment income and dividends receivable ($5,000 × 0.25).		

	20X7	20X8
Like income	$ 20,000	$ 24,000
Adjustment for inventory profit		(1,000)
Adjusted income	$ 20,000	$ 23,000
Ownership percentage	× 25%	× 25%
$ 5,000	$ 5,750	
Less amortization of excess:		
Equipment ($10,000 ÷ 10 years)	(1,000)	(1,000)
Investment income	$ 4,000	$ 4,750

EXERCISE 5-11

Determination and Distribution of Excess Schedule

Price paid for investment		$90,000			
Less book value of interest acquired:					
Common stock ($10 par)	$100,000				
Paid-in capital in excess of par	20,000				
Retained earnings	130,000				
Total stockholders' equity	$250,000				
Interest acquired	× 30%	75,000		Amortization	
Excess of cost over book value (debit)		$15,000		Periods	Amortization
Building		$15,000	Dr.	20	$750

Minnie Company Income Distribution

Profit in ending inventory (40% × $40,000)	$16,000	Internally generated net income	$60,000
		Realized profit on beginning inventory (40% × $10,000)	4,000
		Adjusted income	$48,000
		Turf's ownership interest	× 30%
		Share of income	$14,400
		Less building depreciation	(750)
		Turf's net share of income	$13,6

Investment in Minnie	13,650	
Investment Income		13,650
Gain on Sale of Machine ($5,000 × 30%)	1,500	
Deferred Gain		1,500
Deferred Gain ($1,500 ÷ 5)	300	
Realized Profit on Machine Sale		300

EXERCISE 5-12

Werl Corporation Income Distribution

Profit in ending inventory (30% × $30,000)	$9,000	Internally generated net income	$90,000
Gain on sale of machine	5,000	Realize 1/5 of machine profit	1,000
		Realize profit on beginning inventory (30% × $20,000)	6,000
		Adjusted net income	$83,000
		Ownership interest	× 30%
		Interest on adjusted income	$24,900
		Less equipment depreciation	(3,
		Net investment income	$21,

Investment in Werl	21,700	
Investment Income		21,700
Cash	6,000	
Investment in Werl (30% × $20,000 dividends)		6,000

EXERCISE 5-13

Determination and Distribution of Excess Schedule

10% purchase:		
Price paid		$ 80,000
Less interest acquired:		
Total stockholders' equity	$750,000	
Interest acquired	× 10%	75,000
Goodwill		$ 5,000 Dr.
15% purchase:		
Price paid	$110,000	
Less interest acquired:		
Total stockholders' equity	$800,000	
Interest acquired	× 15%	120,000
Excess of book value over cost (credit balance)		$ (10,000)
Decrease in equipment (4-year life)		10,000
Cr.		
		$ 0

(1)	Investment in Novic	5,000	
	Retained Earnings—Hanson		5,000
	To record equity "catch-up" entry.		

Calculations:

Increase in retained earnings, January 1, 20X6, to January 1, 20X8	$50,000
Ownership interest	× 10%
Equity "catch-up" adjustment	$ 5,000

(2)	Investment in Novic	10,000	
	Cash (50,000 shares × 25% × $0.20 per share)	2,500	
	Investment Income		12,500
	To record net share of subsidiary income and dividends received.		

Income Distribution for Investment in Novic Company

Reported income	$40,000
Ownership interest	× 25%
Share of income	$10,000
Decrease in equipment depreciation expense ($10,000 ÷ 4)	2,500
Investment income, net of amortizations	$12,500

EXERCISE 5-14

Determination and Distribution of Excess Schedule

Price paid	$200,000
Equity interest purchased, 30% × $400,000	120,000
Excess of cost over book value (debit balance)	$ 80,000
Allocate to machinery, 30% × $50,000, 5-year life, $3,000 per year Dr.	15,000
Goodwill Dr.	$ 65,000

Calculation of investment account balance, January 2, 20X9:

Original cost			$200,000
Share of income:			
20X7	$50,000		
20X8		45,000	
$95,000 × 30%			28,500
Dividends paid:			
20X7	$10,000		
20X8		10,000	
$20,000 × 30%			(6,000)
Amortization of excess:			
Machinery ($3,000 × 2 years)			(6,000)
Balance	$216,500		

Entry:

Cash	230,000	
Investment in Aluma-Boat Company		216,500
Realized Gain on Sale of Investment		13,500

PROBLEMS

PROBLEM 5-1

(1)	Bonds Payable	50,000	
	Interest Income	4,700	
	Investment in Bonds		48,600
	Interest Expense		4,500
	Gain on Extinguishment of Debt		1,600

(2)

Justin Corporation and Subsidiary Drew Corporation
Consolidated Income Statement
For Year Ended December 31, 20X6

Sales	$3,040,000
Cost of goods sold	1,405,000
Gross profit	$1,635,000
Other expenses ($720,000 + $105,000)	(825,000)
Income before extraordinary item	$ 810,000
Gain on debt retirement	1,600
Consolidated net income	$ 811,600

PROBLEM 5-2

Patrick Company and Subsidiary Stuart Company
Worksheet for Consolidated Financial Statements
For Year Ended December 31, 20X2

	Trial Balance			Eliminations and Adjustments			Consolidated Income		Controlling Retained	Consolidated Balance
	Patrick	Stuart		Dr.		Cr.	Statement	NCI	Earnings	Sheet
Interest Receivable	4,000				(B2)	4,000				
Other Current Assets	249,200	315,200								564,400
Investment in Stuart Company	350,000		(CV)	45,000	(EL)	360,000				
					(D)	35,000				
Investment in Stuart Bonds	96,800				(BI)	96,800				
Land	80,000	60,000								140,000
Buildings and Equipment	400,000	280,000								680,000
Accumulated Depreciation	(120,000)		(60,000)							
Goodwill			(D)	35,000						35,000
Interest Payable		(4,000)		(B2)	4,000					
Other Current Liabilities	(98,000)		(56,000)							
Bonds Payable (8%)		(100,000)		(B1)	100,000					
Discount on Bonds Payable		4,800			(B1)	4,800				
Other Long-Term Liabilities	(200,000)									(200,000
Common Stock—Patrick	(100,000)									(100,000
Other Paid-In Capital—Patrick	(200,000)									(200,000
Retained Earnings—Patrick	(365,000)					(CV)	45,000			
			(B1)	1,620					(408,380)	
Common Stock—Stuart		(100,000)		(EL)	90,000				(10,000)	
Other Paid-In Capital—Stuart		(40,000)		(EL)	36,000				(4,000)	
Retained Earnings—Stuart		(260,000)		(EL)	234,000					
			(B1)	180				(25,820)		
Net Sales	(640,000)		(350,000)					(990,000)		
Cost of Goods Sold	360,000	200,000					560,000			
Operating Expenses	168,400	71,400					239,800			
Interest Expense		8,600			(B1)	8,600				
Interest Income	(8,400)			(B1)	8,400					
Dividend Income	(27,000)			(CY2)	27,000					
Dividends Declared—Patrick	50,000								50,000	
Dividends Declared—Stuart		30,000			(CY2)	27,000		3,000		
Total	0	0		581,200		581,200				
Consolidated Net Income							(190,200)			
To NCI (see distribution schedule)							7,020	(7,020)		
To Controlling Interest (see distribution schedule)							183,180		(183,180)	
Total NCI								(43,840)		(43,840)
Retained Earnings—Controlling Interest, December 31, 20X2									(541,560)	(541,560
Totals										0

Problem 5-2, Continued

Eliminations and Adjustments:

(CV) Convert to simple equity method as of January 1, 20X2.

(CY2) Eliminate the current-year dividend income of parent against dividends declared by subsidiary.

(EL) Eliminate 90% of the subsidiary company equity balances at the beginning of the year against the investment account.

(D) Allocate the $35,000 excess of cost over book value to goodwill.

(B1) Eliminate intercompany interest revenue and expense. Eliminate the balance in the investment in bonds against bonds payable and the discount on bonds payable. The loss on retirement at the start of the year is calculated as follows:

Loss remaining at year-end:			
Investment in bonds at December 31, 20X2		$96,800	
Bonds payable	$100,000		
Discount on bonds	(4,800)		95,200
$1,600			
Loss amortized during year:			
Interest expense eliminated		$ 8,600	
Interest revenue eliminated		8,400	200
Loss on January 1, 20X2			$1,800

Amortize loss 90% to controlling interest ($1,620) and 10% to NCI ($180).

(B2) Eliminate $4,000 of intercompany interest receivable and payable.

Determination and Distribution of Excess Schedule

Price paid for investment in Stuart		$350,000
Interest acquired:		
Common stock	$100,000	
Other paid-in capital	40,000	
Retained earnings	210,000	
Total equity	$350,000	
Ownership interest	× 90%	315,000
Goodwill		$ 35,000
Dr.		

Subsidiary Stuart Company Income Distribution

Internally generated net income	$70,000
Interest adjustment	200
Adjusted income	$70,200
NCI share	× 10%
NCI	$ 7,020

Problem 5-2, Concluded

Parent Patrick Company Income Distribution

	Internally generated net income	$120,000
	90% × Patrick income of $70,200	63,180
	Controlling interest	$183,180

PROBLEM 5-3

Determination and Distribution of Excess Schedule

Price paid for investment			$1,700,000
Less interest acquired:			
Common stock ($10 par)	$	800,000	
Paid-in capital in excess of par		625,000	
Retained earnings		450,000	
Total stockholders' equity		$1,875,000	
Interest acquired	×	80%	1,500,000
Goodwill			$ 200,000
Dr.			

Problem 5-3, Continued

Worksheet for Consolidated Financial Statements
For Year Ended December 31, 20X6

	Trial Balance		Eliminations and Adjustments				Consolidated		Controlling	Consolidated
	General Appliances	Warehouse Outlets		Dr.		Cr.	Income Statement	NCI	Retained Earnings	Balance Sheet
Cash	401,986	72,625								474,611
Accounts Receivable (net)	752,500	105,000								857,500
Interest Receivable	9,625				(LN2)	9,625				
Inventory	1,950,000	900,000								2,850,000
Investment in Warehouse Outlets	1,700,000		(CV)	256,000	(EL)	1,756,000				
					(D)	200,000				
Investment in 11% Bonds	256,000				(B)	256,000				
Investment in Mortgage	175,000				(LN1)	175,000				
Property, Plant, and Equipment	9,000,000	2,950,000			(F1)	27,500				11,922,500
Accumulated Depreciation	(1,695,000)		(940,000)	(F2)		1,375				
Goodwill			(D)	200,000						200,000
Accounts Payable	(670,000)		(80,000)							
Interest Payable	(18,333)		(9,625)	(LN2)		9,625				
Bonds Payable (11%)	(2,000,000)		(500,000)	(B)		250,000				
Discount on Bonds Payable	10,470	12,000			(B)	6,000				16,470
Mortgage Payable		(175,000)	(LN1)		175,000					
Common Stock ($5 par)— General Appliances	(3,200,000)									(3,200,00
Paid-In Capital in Excess of Par— General Appliances	(4,550,000)									(4,550,00
Retained Earnings—General Appliances	(1,011,123)					(CV)	256,000			
			(B)	12,000					(1,255,123)	
Common Stock ($10 par)— Warehouse Outlets		(800,000)	(EL)		640,000				(160,000)	
Paid-In Capital in Excess of Par— Warehouse Outlets		(625,000)	(EL)		500,000				(125,000)	
Retained Earnings—Warehouse Outlets		(770,000)	(EL)		616,000					
			(B)	3,000				(151,000)		
Sales	(9,800,000)		(3,000,000)					(12,800,000)		
Gain on Sale of Building	(27,500)		(F1)		27,500					
Interest Income	(35,625)		(B)		26,000					
			(LN2)	9,625						
Dividend Income	(48,000)		(CY2)		48,000					
Cost of Goods Sold	4,940,000	1,700,000					6,640,000			
Depreciation Expense	717,000	95,950			(F2)	1,375	811,575			
Interest Expense	223,000	67,544			(B)	29,000				
					(LN2)	9,625	251,919			
Other Expenses	2,600,000	936,506					3,536,506			

Problem 5-3, Continued

Worksheet for Consolidated Financial Statements
For Year Ended December 31, 20X6
(Concluded)

	Trial Balance		Eliminations and Adjustments				Consolidated		Controlling	Consolidated
	General Appliances	Warehouse Outlets	Dr.		Cr.	Income Statement	NCI	Retained Earnings	Balance Sheet
Dividends Declared	320,000	60,000	.....	(CY2)	48,000	.....	12,000	320,000	.....
	0	0	2,774,125		2,774,125	.....	.....	.....	.....
Consolidated Net Income						(1,560,000)	.....	.....	.....
To NCI (see distribution schedule)						40,600	(40,600)	.....	.....
To Controlling Interest (see distribution schedule)						1,519,400	.....		
(1,519,400)									
Total NCI							(464,600)	.....	(464,600)
Retained Earnings—Controlling Interest, December 31, 20X6								(2,454,523)	
.....								(2,454,523)	
Totals									0

Problem 5-3, Continued

Eliminations and Adjustments:

(CV) Convert investment to equity, 80% × ($770,000 – $450,000) = $256,000.

(CY2) Eliminate dividend income.

(EL) Eliminate 80% of the subsidiary equity balances.

(D) Distribute the excess according to the determination and distribution of excess schedule.

(B) Eliminate intercompany interest revenue and expense. Eliminate the balance in the investment in bonds against the bonds payable. The loss on retirement at the start of the year is calculated as follows:

Loss remaining at year-end:		
Investment in bonds at December 31, 20X6	$256,000	
Net carrying value of bonds at December 31, 20X6	244,000	$12,000
Loss amortized during the year:		
Interest expense eliminated	$ 29,000	
Interest revenue eliminated	26,000	3,000
Remaining loss at January 1, 20X6		$15,000

The remaining unamortized loss is allocated 80% to the controlling retained earnings and 20% to the NCI retained earnings.

(F1) Eliminate the intercompany gain on sale of building.

(F2) Reduce depreciation expense on the building for one-half year, ($27,500 ÷ 10) × 1/2.

(LN1) Eliminate the intercompany mortgage.

(LN2) Eliminate the intercompany interest payable and receivable on mortgage. Eliminate the intercompany interest revenue and expense on mortgage, 1/2 × 11% × $175,000 = $9,625.

Problem 5-3, Concluded

Subsidiary Warehouse Outlets Income Distribution

	Internally generated net income	$200,000
	Interest adjustment ($29,000 – $26,000)	3,000
	Adjusted income	$203,000
	NCI share	× 20%
	NCI	$ 40,600

Parent General Appliances Income Distribution

Unrealized gain on sale of building	$27,500	Internally generated net income	$1,383,125
		Gain realized through use of building for one-half year	1,375
		80% × Warehouse Outlets adjusted income of $203,000	162,400
		Controlling interest	$1,519,400

PROBLEM 5-4

Intercompany Bonds

Common Information:

Ownership interest	80%
Price paid (including direct acquisition costs)	$350,000
Year of consolidation (1 = year of purchase)	2

Problem 5-4, Continued

Stackner Company's Balance Sheet before Purchase

	Book Value	Fair Value	Life		Book Value	Fair Value	Life
Priority assets:							
Accounts receivable	40,000	40,000	1	Accounts payable	42,297	42,297	
Inventory	20,000	20,000	1	Bonds payable	97,703	97,703	
Total priority assets	**60,000**	**60,000**		**Total liabilities**	**140,000**	**140,000**	
Nonpriority assets:							
Land	35,000	35,000		Stockholders' equity:			
Buildings	250,000	275,000	20	Common stock,$1 par	10,000		
Accumulated depreciation	(50,000)			Paid-in capital in			
Equipment	120,000	120,000	5	excess of par	90,000		
Accumulated depreciation	(60,000)			Retained earnings	115,000		
Total nonpriority assets	**295,000**	**430,000**		Total equity	215,000		
Total assets	**355,000**	**490,000**		**Value of net assets**	**215,000**	**350,000**	

Intercompany Merchandise Information

	Parent Sales	Parent Percent	Subsidiary Sales	Subsidiary Percent
Current-year sales	$50,000			
Unpaid account balance, year-end	10,000			
Beginning inventory	15,000	30%		
Ending inventory	20,000	30%		

Intercompany Bonds Information

	Period	Interest Amount
Period of parent purchase	2	
Subsidiary interest expense		$8,328
Parent interest revenue		7,845

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$ (80,000)	$ (64,000)	$ (64,000)
Nonpriority accounts	430,000	344,000	280,000

Price Analysis

Price	$350,000	
Assign to priority accounts	(64,000)	full value
Assign to nonpriority accounts	344,000	full value

Goodwill	70,000

Problem 5-4, Continued

Determination and Distribution of Excess Schedule

Price paid for investment		$350,000	
Less book value interest acquired:			
Common stock	$ 10,000		
Paid-in capital in excess of par	90,000		
Retained earnings	115,000		
Total equity	$215,000		
Interest acquired	× 80%	172,000	
Excess of cost over book value (debit)		$178,000	

		Amortization Periods	Amortization
Buildings	$ 60,000	debit D1	20
$3,000			
Equipment	48,000	debit D2	5
9,600			
Goodwill	70,000	debit D3	
Total adjustments	$178,000		

Amortization Schedules
Year of Consolidation 2

Account Adjustments To Be Amortized	Life	Annual Amount	Current Year	Prior Years	Total	Key
Buildings	20	$ 3,000	$ 3,000	$ 3,000	$ 6,000	
A1						
Equipment	5	9,600	9,600	9,600	19,200	
A2						
Total amortizations		$12,600	$12,600	$12,600	$25,200	

Intercompany Inventory Profit Deferral

	Parent Amount	Parent Percent	Parent Profit	Sub. Amount	Sub. Percent	Sub. Profit
Beginning	$15,000	30%	$4,500	—	0%	—
Ending	20,000	30%	6,000	—	0%	—

Problem 5-4, Continued

Subsidiary Stackner Income Distribution

Extraordinary loss on bond retirement	$2,898	Internally generated net income	$24,672
		Interest adjustment—bonds	483
		Adjusted income	$22,257
		NCI share	× 20%
		NCI	$ 4,451

Parent Packard Income Distribution

Building depreciation	$3,000	Internally generated net income	$42,845
Equipment depreciation	9,600	80% share of Stackner adjusted income of $22,257	17,806
Ending inventory profit	6,000	Beginning inventory profit	4,500
		Controlling interest	$46,551

Proof

Loss remaining at year-end:		
Investment in bonds at December 31, 20X5	$100,775	
Carrying value at December 31, 20X5	98,360	$2,415
Loss amortized during the year:		
Interest expense eliminated	$ 8,328	
Interest revenue eliminated	7,845	483
Extraordinary loss at January 1, 20X5		$2,898

Problem 5-4 continues on page 274.

Problem 5-4, Continued

Year of Consolidation 2

	Trial Balance		Eliminations and Adjustments					Consolidated Income		Controlling Retained	Consolidated Balance
	Packard	Stackner			NCI	Earnings	Sheet	Dr.	Cr.	Statement	
Cash	71,070	32,032									103,102
Accounts Receivable	90,000	60,000			(IA)	10,000					140,000
Inventory	100,000	30,000			(EI)	6,000					124,000
Land	150,000	45,000									195,000
Investment in Stackner	385,738				(CY1)	19,738					
			(CY2)	8,000							
					(EL)	196,000					
					(D)	178,000					
Investment in Stackner Bonds	100,775				(B)	100,775					
Buildings	500,000	250,000	(D1)	60,000							810,000
Accumulated Depreciation	(300,000)		(70,000)				(A1)	6,000			
Equipment	200,000	120,000	(D2)	48,000							368,000
Accumulated Depreciation	(100,000)		(84,000)				(A2)	19,200			
Goodwill			(D3)	70,000							70,000
Accounts Payable	(55,000)		(25,000)		(IA)	10,000					
Bond Payable		(100,000)		(B)	100,000						
Discount (premium)		1,640			(B)	1,640					
Common Stock—Stackner		(10,000)		(EL)	8,000					(2,000)	
Paid-In Capital in Excess of Par—Stackner		(90,000)		(EL)	72,000					(18,000)	
Retained Earnings—Stackner		(145,000)		(EL)	116,000						
									(29,000)		
Common Stock—Packard	(100,000)										(100,000
Paid-In Capital in Excess of Par—Packard	(600,000)										(600,000
Retained Earnings—Packard	(400,000)			(A1–A2)	12,600						
			(BI)	4,500						(382,900)	
Loss (gain)			(B)	2,898				2,898			
Sales	(600,000)		(220,000)		(IS)	50,000			(770,000)		
Cost of Goods Sold	410,000	120,000			(IS)	50,000					
			(EI)	6,000	(BI)	4,500		481,500			
Depreciation Expense—Buildings	30,000	10,000	(A1)	3,000				43,000			
Depreciation Expense—Equipment	15,000	12,000	(A2)	9,600				36,600			
Other Expenses	110,000	45,000						155,000			
Interest Expense		8,328			(B)	8,328					
Interest Revenue	(7,845)			(B)	7,845						
Subsidiary Income	(19,738)			(CY1)	19,738						

Problem 5-4, Concluded

Year of Consolidation
(Concluded)

	Trial Balance		Eliminations and Adjustments			Consolidated Income		Controlling Retained	Consolidated Balance
	Packard	Stackner	Dr.	Cr.	Statement	NCI	Earnings	Sheet			
Dividends Declared—Stackner				10,000		(CY2)	8,000		2,000		
Dividends Declared—Packard			20,000							20,000	
Totals			0	0	608,181		608,181				
Consolidated Net Income								(51,002)			
NCI Share								4,451	(4,451)		
Controlling Share								46,551		(46,551)	
NCI									(51,451)		(51,451)
Controlling Retained Earnings										(409,451)	(409,451)
Totals											0

Eliminations and Adjustments:

(CY1) Current-year subsidiary income.
(CY2) Current-year dividend.
(EL) Eliminate controlling interest in subsidiary equity.
(D) Distribute excess.
(A1) Amortize excess—buildings.
(A2) Amortize excess—equipment.
(IS) Eliminate intercompany sale during current period.
(IA) Eliminate intercompany unpaid trade accounts.
(BI) Defer beginning inventory profit.
(EI) Defer ending inventory profit.
(B) Eliminate intercompany bonds.

PROBLEM 5-5

Intercompany Bonds

Common Information:

Ownership interest	80%
Price paid (including direct acquisition costs)	$350,000
Year of consolidation (1 = year of purchase)	3

Stackner Company's Balance Sheet before Purchase

	Book Value	Fair Value	Life		Book Value	Fair Value	Life
Priority assets:							
Accounts receivable	40,000	40,000	1	Accounts payable	42,297	42,297	
Inventory	20,000	20,000	1	Bonds payable	97,703	97,703	
Total priority assets	**60,000**	**60,000**		**Total liabilities**	**140,000**	**140,000**	
Nonpriority assets:							
Land	35,000	35,000		Stockholders' equity:			
Buildings	250,000	275,000	20	Common stock, $1 par	10,000		
Accumulated depreciation	(50,000)			Paid-in capital in			
Equipment	120,000	120,000	5	excess of par	90,000		
Accumulated depreciation	(60,000)			Retained earnings	115,000		
Total nonpriority assets	**295,000**	**430,000**		Total equity	215,000		
Total assets	**355,000**	**490,000**		**Value of net assets**	**215,000**	**350,000**	

Intercompany Merchandise Information

	Parent Sales	Parent Percent	Subsidiary Sales	Subsidiary Percent
Current-year sales	$60,000			
Unpaid account balance, year-end	12,000			
Beginning inventory	20,000	30%		
Ending inventory	25,000	30%		

Intercompany Bonds Information

	Period	Interest Amount
Period of parent purchase	2	
Subsidiary interest expense		$8,328
Parent interest revenue		7,845

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$ (80,000)	$ (64,000)	$ (64,000)
Nonpriority accounts	430,000	344,000	280,000

Problem 5-5, Continued

Price Analysis

Price	$350,000	
Assign to priority accounts	(64,000)	full value
Assign to nonpriority accounts	344,000	full value
Goodwill	70,000	

Determination and Distribution of Excess Schedule

Price paid for investment			$350,000		
Less book value interest acquired:					
Common stock	$	10,000			
Paid-in capital in excess of par		90,000			
Retained earnings		115,000			
Total equity		$215,000			
Interest acquired	×	80%	172,000		
Excess of cost over book value (debit)			$178,000		
				Amortization Periods	Amortization
Buildings			$ 60,000	debit D1	20
$3,000					
Equipment			48,000	debit D2	5
9,600					
Goodwill			70,000	debit D3	
Total adjustments			$178,000		

Amortization Schedules
Year of Consolidation 3

Account Adjustments To Be Amortized	Life	Annual Amount	Current Year	Prior Years	Total	Key
Buildings	20	$ 3,000	$ 3,000	$ 6,000	$ 9,000	
A1						
Equipment	5	9,600	9,600	19,200	28,800	
A2						
Total amortizations		$12,600	$12,600	$25,200	$37,800	

Intercompany Inventory Profit Deferral

	Parent Amount	Parent Percent	Parent Profit	Sub. Amount	Sub. Percent	Sub. Profit
Beginning	$20,000	30%	$6,000	—	0%	—
Ending	25,000	30%	7,500	—	0%	—

Problem 5-5, Continued

Subsidiary Stackner Income Distribution

Internally generated net income	$31,672
Interest adjustment—bonds	483
Adjusted income	$32,155
NCI share	× 20%
NCI	$ 6,431

Parent Packard Income Distribution

Building depreciation	$3,000	Internally generated net income	$57,845
Equipment depreciation	9,600	80% share of Stackner adjusted income of $32,155	25,724
Ending inventory profit	7,500	Beginning inventory profit	6,000
		Controlling interest	$69,469

Proof

Loss remaining at year-end:		
Investment at bonds at December 31, 20X6	$100,620	
Carrying value at December 31, 20X6	98,688	$1,932
Loss amortized during the year:		
Interest expense eliminated	$ 8,328	
Interest revenue eliminated	7,845	483
Loss at January 1, 20X6		$2,415

Problem 5-5 continues on page 280.

Problem 5-5, Continued

Year of Consolidation 3

	Trial Balance		Eliminations and Adjustments					Consolidated Income		Controlling Retained	Consolidated Balance
Packard	Stackner	Dr.	Cr.	Statement		NCI	Earnings	Sheet			
Cash		101,710	61,032								162,742
Accounts Receivable		110,000	60,000			(IA)	12,000				158,000
Inventory		120,000	45,000			(EI)	7,500				157,500
Land		150,000	45,000								195,000
Investment in Stackner		403,075				(CY1)	25,337				
				(CY2)	8,000						
						(EL)	207,738				
						(D)	178,000				
Investment in Stackner Bonds		100,620				(B)	100,620				
Buildings		500,000	250,000	(D1)	60,000						810,000
Accumulated Depreciation		(330,000)		(80,000)			(A1)	9,000			
Equipment		200,000	120,000	(D2)	48,000						368,000
Accumulated Depreciation		(115,000)		(96,000)			(A2)	28,800			
Goodwill				(D3)	70,000						70,000
Accounts Payable		(35,000)		(25,000)		(IA)	12,000				
Bond Payable			(100,000)		(B)	100,000					
Discount (premium)			1,312			(B)	1,312				
Common Stock—Stackner			(10,000)		(EL)	8,000				(2,000)	
Paid-In Capital in Excess of Par—Stackner			(90,000)		(EL)	72,000				(18,000)	
Retained Earnings—Stackner			(159,672)		(EL)	127,738					
				(B)	483				(31,451)		
Common Stock—Packard		(100,000)									(100,000
Paid-In Capital in Excess of Par—Packard		(600,000)									(600,000
Retained Earnings—Packard		(442,223)			(A1–A2)25,200						
				(BI)	6,000					(409,091)	
				(B)	1,932						
Sales		(700,000)		(230,000)		(IS)	60,000		(870,000)		
Cost of Goods Sold		480,000	125,000			(IS)	60,000				
				(EI)	7,500	(BI)	6,000	546,500			
Depreciation Expense—Buildings		30,000	10,000	(A1)	3,000			43,000			
Depreciation Expense—Equipment		15,000	12,000	(A2)	9,600			36,600			
Other Expenses		125,000	43,000					168,000			
Interest Expense			8,328			(B)	8,328				
Interest Revenue		(7,845)			(B)	7,845					
Subsidiary Income		(25,337)			(CY1)	25,337					

Problem 5-5, Concluded

Year of Consolidation 3
(Concluded)

	Trial Balance		Eliminations and Adjustments			Consolidated Income		Controlling Retained	Consolidated Balance
	Packard	Stackner	Dr.	Cr.	Statement	NCI	Earnings	Sheet			
Dividends Declared—Stackner	.....	10,000	.....	(CY2)	8,000	.....	2,000	.....	.....
Dividends Declared—Packard	20,000	.....	.....	.....	.....	.....	20,000	.....	.....
Totals	0	0	652,636	652,636	.....	.....	.....	.....	.....
Consolidated Net Income						(75,900)	.....	.....	.....
NCI Share						6,431	(6,431)	.....	.....
Controlling Share						69,469	.....	(69,469)	.....
NCI							(55,882)	.....	(55,882)
Controlling Retained Earnings								(458,560)	(458,560)
Totals									0

Eliminations and Adjustments:

(CY1) Current-year subsidiary income.
(CY2) Current-year dividend.
(EL) Eliminate controlling interest in subsidiary equity.
(D) Distribute excess.
(A) Amortize excess.
(IS) Eliminate intercompany sales during current period.
(IA) Eliminate intercompany unpaid trade accounts.
(BI) Defer beginning inventory profit.
(EI) Defer ending inventory profit.
(B) Eliminate intercompany bonds.

PROBLEM 5-6

Intercompany Bonds

Common Information:

Ownership interest	80%
Price paid (including direct acquisition costs)	$400,000
Year of consolidation (1 = year of purchase)	2

Sparkle Company's Balance Sheet before Purchase

	Book Value	Fair Value	Life		Book Value	Fair Value	Life
Priority assets:							
Accounts receivable	90,000	90,000	1	Accounts payable	17,352	17,352	
Inventory	50,000	50,000	1	Bonds payable	102,648	102,648	
Total priority assets	**140,000**	**140,000**		**Total liabilities**	**120,000**	**120,000**	
Nonpriority assets:							
Land	60,000	60,000		Stockholders' equity:			
Buildings	100,000	200,000	20	Common stock, $1 par	10,000		
Accumulated depreciation	(30,000)			Paid-in capital in			
Equipment	80,000	100,000	5	excess of par	90,000		
Accumulated depreciation	(30,000)			Retained earnings	100,000		
Total nonpriority assets	**180,000**	**360,000**		Total equity	200,000		
Total assets	**320,000**	**500,000**		**Value of net assets**	**200,000**	**380,000**	

Intercompany Merchandise Information

	Parent Sales	Parent Percent	Subsidiary Sales	Subsidiary Percent
Current-year sales			$20,000	
Unpaid account balance, year-end			7,000	
Beginning inventory			9,000	25%
Ending inventory			12,000	25%

Intercompany Bonds Information

	Period	Interest Amount
Period of parent purchase	2	
Subsidiary interest expense		$7,676
Parent interest revenue		8,596

Zone Analysis	Group Total	Ownership Portion	Cumulative Total
Priority accounts	$ 20,000	$ 16,000	$ 16,000
Nonpriority accounts	360,000	288,000	304,000

Problem 5-6, Continued

Price Analysis

Price	$400,000	
Assign to priority accounts	16,000	full value
Assign to nonpriority accounts	288,000	full value
Goodwill	96,000	

Determination and Distribution of Excess Schedule

Price paid for investment		$400,000		
Less book value interest acquired:				
Common stock	$ 10,000			
Paid-in capital in excess of par	90,000			
Retained earnings	100,000			
Total equity	$200,000			
Interest acquired	× 80%	160,000		
Excess of cost over book value (debit)		$240,000		
			Amortization Periods Amortization	
Buildings		$104,000	debit D1	20
$5,200				
Equipment		40,000	debit D2	5
8,000				
Goodwill		96,000	debit D3	
Total adjustments		$240,000		

Amortization Schedules
Year of Consolidation 2

Account Adjustments To Be Amortized	Life	Annual Amount	Current Year	Prior Years	Total	Key
Buildings	20	$ 5,200	$ 5,200	$ 5,200	$10,400	
A1						
Equipment	5	8,000	8,000	8,000	16,000	
A2						
Total amortizations		$13,200	$13,200	$13,200	$26,400	

Intercompany Inventory Profit Deferral

	Parent Amount	Parent Percent	Parent Profit	Sub. Amount	Sub. Percent	Sub. Profit
Beginning	—	0%	—	$ 9,000	25%	$2,250
Ending	—	0%	—	12,000	25%	3,000

Problem 5-6, Continued

Subsidiary Sparkle Income Distribution

Ending inventory profit	$3,000	Internally generated net income	$27,324
Interest adjustment—bonds	920	Gain on retirement of bonds	6,833
		Beginning inventory profit	2,250
		Adjusted income	$32,487
		NCI share	× 20%
		NCI	$ 6,497

Parent Postman Income Distribution

Building depreciation	$5,200	Internally generated net income	$173.596
Equipment depreciation	8,000	80% share of Sparkle adjusted income of $32,487	25,990
Ending inventory profit	7,500	Beginning inventory profit	6,000
		Controlling interest	$186,386

Proof

Gain remaining at year-end:		
Carrying value at December 31, 20X5	$102,023	
Investment at bonds at December 31, 20X5	96,110	$5,913
Gain amortized during the year:		
Interest revenue eliminated	$ 8,596	
Interest expense eliminated	7,676	920
Gain at January 1, 20X5		$6,833

Problem 5-6 continues on page 286.

Problem 5-6, Continued

Year of Consolidation 2

	Trial Balance		Eliminations and Adjustments				Consolidated Income		Controlling Retained	Consolidated Balance
Postman Sparkle	Dr.	Cr.	Statement		NCI	Earnings	Sheet			
Cash	144,486	99,347								243,833
Accounts Receivable	90,000	60,000			(IA)	7,000				143,000
Inventory	120,000	55,000			(EI)	3,000				172,000
Land	200,000	60,000								260,000
Investment in Sparkle	429,859				(CY1)	21,859				
			(CY2)	8,000						
					(EL)	176,000				
					(D)	240,000				
Investment in Sparkle Bonds	96,110				(B)	96,110				
Buildings	600,000	100,000	(D1)	104,000						804,000
Accumulated Depreciation	(310,000)		(40,000)			(A1)	10,400			
Equipment	150,000	80,000	(D2)	40,000						270,000
Accumulated Depreciation	(90,000)		(50,000)			(A2)	16,000			
Goodwill			(D3)	96,000						96,000
Accounts Payable	(55,000)		(25,000)		(IA)	7,000				
Bond Payable		(100,000)		(B)	100,000					
Discount (premium)		(2,023)		(B)	2,023					
Common Stock—Sparkle		(10,000)		(EL)	8,000				(2,000)	
Paid-In Capital in Excess of Par—Sparkle		(90,000)		(EL)	72,000				(18,000)	
Retained Earnings—Sparkle		(120,000)		(EL)	96,000					
			(BI)	450				(23,550)		
Common Stock—Postman	(100,000)									(100,000
Paid-In Capital in Excess of Par—Postman	(800,000)									(800,000
Retained Earnings—Postman	(300,000)			(A1–A2)13,200						
			(BI)	1,800					(285,000)	
Extraordinary Loss (gain)					(B)	6,833	(6,833)			
Sales	(850,000)		(320,000)		(IS)	20,000		(1,150,000)		
Cost of Goods Sold	500,000	200,000			(IS)	20,000				
			(EI)	3,000	(BI)	2,250	680,750			
Depreciation Expense—Buildings	30,000	5,000	(A1)	5,200			40,200			
Depreciation Expense—Equipment	15,000	10,000	(A2)	8,000			33,000			
Other Expenses	140,000	70,000					210,000			
Interest Expense		7,676			(B)	7,676				
Interest Revenue	(8,596)			(B)	8,596					
Subsidiary Income	(21,859)			(CY1)	21,859					

Problem 5-6, Concluded

Year of Consolidation 2
(Concluded)

	Trial Balance		Eliminations and Adjustments			Consolidated Income		Controlling Retained	Consolidated Balance
Postman Sparkle	Dr.	Cr.	Statement	NCI	Earnings	Sheet			
Dividends Declared—Sparkle		10,000		(CY2)	8,000		2,000		
Dividends Declared—Postman	20,000							20,000	
Totals	0	0	615,128		615,128				
Consolidated Net Income						(192,883)			
NCI Share						6,497	(6,497)		
Controlling Share						186,386		(186,386)	
NCI							(48,047)		(48,047)
Controlling Retained Earnings								(451,386)	(451,386)
Totals									0

Eliminations and Adjustments:

(CY1) Current-year subsidiary income.
(CY2) Current-year dividend.
(EL) Eliminate controlling interest in subsidiary equity.
(D) Distribute excess.
(A) Amortize excess.
(IS) Eliminate intercompany sales during current period.
(IA) Eliminate intercompany unpaid trade accounts.
(BI) Defer beginning inventory profit.
(EI) Defer ending inventory profit.
(B) Eliminate intercompany bond.

PROBLEM 5-7

Intercompany Bonds

Common Information:

Ownership interest	80%
Price paid (including direct acquisition costs)	$400,000
Year of consolidation (1 = year of purchase)	3

Sparkle Company's Balance Sheet before Purchase

	Book Value	Fair Value	Life		Book Value	Fair Value	Life
Priority assets:							
Accounts receivable	90,000	90,000	1	Accounts payable	17,352	17,352	
Inventory	50,000	50,000	7	Bonds payable	102,648	102,648	1
Total priority assets	**140,000**	**140,000**		**Total liabilities**	**120,000**	**120,000**	
Nonpriority assets:							
Land	60,000	60,000		Stockholders' equity:			
Buildings	100,000	200,000	20	Common stock, $1 par	10,000		
Accumulated depreciation	(30,000)			Paid-in capital in			
Equipment	80,000	100,000	5	excess of par	90,000		
Accumulated depreciation	(30,000)			Retained earnings	100,000		
Total nonpriority assets	**180,000**	**360,000**		Total equity	200,000		
Total assets	**320,000**	**500,000**		**Value of net assets**	**200,000**	**380,000**	

Intercompany Merchandise Information

	Parent Sales	Parent Percent	Subsidiary Sales	Subsidiary Percent
Current-year sales			$25,000	
Unpaid account balance, year-end			6,000	
Beginning inventory			12,000	25%
Ending inventory			10,000	25%

Intercompany Bonds Information

	Period	Interest Amount
Period of parent purchase	2	
Subsidiary interest expense, current period		$7,652
Parent interest revenue, current period		8,650

Zone Analysis	Group Total	Ownership Portion	Cumulative Total

Priority accounts	$ 20,000	$ 16,000	$ 16,000
Nonpriority accounts	360,000	288,000	304,000

Problem 5-7, Continued

Price Analysis

Price	$400,000	
Assign to priority accounts	16,000	full value
Assign to nonpriority accounts	288,000	full value
Goodwill	96,000	

Determination and Distribution of Excess Schedule

Price paid for investment		$400,000			
Less book value interest acquired:					
Common stock	$ 10,000				
Paid-in capital in excess of par	90,000				
Retained earnings	100,000				
Total equity	$200,000				
Interest acquired	× 80%	160,000			
Excess of cost over book value (debit)		$240,000			
				Amortization Periods	Amortization
Buildings		$104,000	debit D1		20
$5,200					
Equipment		40,000	debit D2		5
8,000					
Goodwill		96,000	debit D3		
Total adjustments		$240,000			

Amortization Schedules
Year of Consolidation 3

Account Adjustments To Be Amortized	Life	Annual Amount	Current Year	Prior Years	Total	Key
Buildings	20	$ 5,200	$ 5,200	$10,400	$15,600	
A1						
Equipment	5	8,000	8,000	16,000	24,000	
A2						
Total amortizations		$13,200	$13,200	$26,400	$39,600	

Intercompany Inventory Profit Deferral

	Parent Amount	Parent Percent	Parent Profit	Sub. Amount	Sub. Percent	Sub. Profit
Beginning	—	0%	—	$12,000	25%	$3,000
Ending	—	0%	—	10,000	25%	2,500

Problem 5-7, Continued

Subsidiary Sparkle Income Distribution

Ending inventory profit	$2,500	Internally generated net income	$17,348
Interest adjustment—bonds	998	Beginning inventory profit	3,000
		Adjusted income	$16,850
		NCI share	× 20%
		NCI	$ 3,370

Parent Postman Income Distribution

Building depreciation	$5,200	Internally generated net income	$178,650
Equipment depreciation	8,000	80% share of Sparkle adjusted income of $16,850	13,480
Ending inventory profit	7,500		
		Controlling interest	$178,930

Proof

Gain remaining at year-end:		
Carrying value at December 31, 20X6	$101,675	
Investment at bonds at December 31, 20X6	96,760	$4,915
Gain amortized during the year:		
Interest revenue eliminated	$ 8,650	
Interest expense eliminated	7,652	998
Gain at January 1, 20X6		$5,913

Problem 5-7 continues on page 292.

Problem 5-7, Continued

Year of Consolidation 3

	Trial Balance		Eliminations and Adjustments				Consolidated Income Statement	Controlling Retained Earnings	Consolidated Balance Sheet
Postman Sparkle	Dr.	Cr.			NCI				
Cash	290,486	99,347							389,833
Accounts Receivable	120,000	91,000			(IA)	6,000			205,000
Inventory	140,000	55,000			(EI)	2,500			192,500
Land	200,000	60,000							260,000
Investment in Sparkle	435,737				(CY1)	13,878			
			(CY2)	8,000					
					(EL)	189,859			
					(D)	240,000			
Investment in Sparkle Bonds	96,760				(B)	96,760			
Buildings	600,000	100,000	(D1)	104,000					804,000
Accumulated Depreciation	(340,000)		(45,000)			(A1)	15,600		
Equipment	150,000	80,000	(D2)	40,000					270,000
Accumulated Depreciation	(105,000)		(60,000)			(A2)	24,000		
Goodwill			(D3)	96,000					96,000
Accounts Payable	(40,000)		(34,000)		(IA)	6,000			
Bond Payable		(100,000)		(B)	100,000				
Premium		(1,675)		(B)	1,675				
Common Stock—Sparkle		(10,000)		(EL)	8,000			(2,000)	
Paid-In Capital in Excess of Par—Sparkle		(90,000)		(EL)	72,000			(18,000)	
Retained Earnings—Sparkle		(137,324)		(EL)	109,859				
			(BI)	600					
					(B)	1,183		(28,048)	
Common Stock—Postman	(100,000)								(100,000
Paid-In Capital in Excess of Par—Postman	(800,000)								(800,000
Retained Earnings—Postman	(475,455)			(A1–A2)	26,400				
			(BI)	2,400				(451,385)	
					(B)	4,730			
Sales	(900,000)		(350,000)		(IS)	25,000		(1,225,000)	
Cost of Goods Sold	530,000	230,000			(IS)	25,000			
			(EI)	2,500	(BI)	3,000	734,500		
Depreciation Expense—Buildings	30,000	5,000	(A1)	5,200			40,200		
Depreciation Expense—Equipment	15,000	10,000	(A2)	8,000			33,000		
Other Expenses	155,000	80,000					235,000		
Interest Expense		7,652			(B)	7,652			
Interest Revenue	(8,650)			(B)	8,650				

Problem 5-7, Concluded

Year of Consolidation 3
(Concluded)

	Trial Balance		Eliminations and Adjustments			Consolidated Income		Controlling Retained	Consolidated Balance
	Postman	Sparkle	Dr.	Cr.	Statement	NCI	Earnings	Sheet			
Subsidiary Income			(13,878)		(CY1)	13,878					
Dividends Declared—Sparkle				10,000		(CY2)	8,000		2,000		
Dividends Declared—Postman			20,000							20,000	
Totals			0	0	638,162		638,162				
Consolidated Net Income								(182,300)			
NCI Share								3,370	(3,370)		
Controlling Share								178,930		(178,930)	
NCI									(49,418)		(49,418)
Controlling Retained Earnings										(610,315)	(610,315)
Totals											0

Eliminations and Adjustments:

(CY1) Current-year subsidiary income.
(CY2) Current-year dividend.
(EL) Eliminate controlling interest in subsidiary equity.
(D) Distribute excess.
(A) Amortize excess.
(IS) Eliminate intercompany sales during current period.
(IA) Eliminate intercompany unpaid trade accounts.
(BI) Defer beginning inventory profit.
(EI) Defer ending inventory profit.
(B) Eliminate intercompany bonds.

PROBLEM 5-8

(1) (a) $14,000 decrease in income. The $21,000 gain is eliminated. Depreciation expense is reduced by 1/3 of the gain, $7,000.

(b) $10,000 decrease in income. The gain on the ending inventory is deferred. The profit would be 1/3 × 1/2 × $60,000.

(c) $9,000 increase. The intercompany bonds are retired on the worksheet which creates a $9,000 gain in 20X2.

(2) a – 1

b – 2

c – 5

d – 2

e – 6

f – 3 (Shaw's 10% is included in NCI.)

g – 3 (Shaw's 10% is included in NCI; however, the NCI may appear in a separate column of a retained earnings statement.)

h – 3 (Same note as for "g" above.)

i – 6

j – 2

k – 4

l – 2

PROBLEM 5-9

Luis Company and Subsidiary Marc Company
Consolidated Statement of Cash Flows
For Year Ended December 31, 20X2

Cash flows from operating activities:		
Consolidated net income		$ 278,000
Adjustments to reconcile net income to net cash:		
Depreciation expense	$ 200,000	
Increase in inventory	(40,000)	
Increase in accounts receivable	(100,000)	
Increase in accounts payable	83,000	
Equity income from Charles Corporation in excess of dividends*	(14,500)	
Total adjustments		128,500
Net cash provided by operating activities		$ 406,500
Cash flows from investing activities:		
Purchase of building	$(300,000)	
Purchase of equipment	(50,000)	
Investment in Charles	(230,000)	
Net cash used in investing activities		(580,000)
Cash flows from financing activities:		
Proceeds of bond sale	$ 300,000	
Dividend payments to controlling interests	(100,000)	
Dividend payments to NCI	(3,000)	
Net cash provided by financing activities		197,000
Net increase in cash		$ 23,500
Cash at beginning of year		16,000
Cash at year-end		$ 39,500

*Equity income from the investment in Charles provides funds only to the extent of dividends received. The excess equity income must be deducted from consolidated net income in determining funds provided by net income.

30% of reported Charles income (30% × $80,000)	$24,000
Less amortization of excess	2,000
Equity income	$22,000
Less dividends received (30% × $25,000)	7,500
Noncash income	$14,500

Problem 5-9, Concluded

Determination and Distribution of Excess Schedule

Price paid		$640,000
Less interest acquired:		
Total stockholders' equity	$650,000	
Interest acquired	× 80%	520,000
Excess of cost over book value (debit balance)		$120,000
Attributable to long-lived assets:		
Less undervaluation of equipment (80% × $25,000, 5-year life, $4,000 per year)		20,000
Dr.		
Goodwill		$100,000
Dr.		

PROBLEM 5-10

Billing Enterprises and Subsidiary Raush Corporation
Consolidated Statement of Cash Flows
For Year Ended December 31, 20X1

Cash flows from operating activities:		
Consolidated net income		$ 92,700
Adjustments to reconcile net income to net cash:		
Depreciation expense (includes amortization of excess on equipment)	$ 72,000*	
Decrease in accounts receivable	54,000	
Decrease in accounts payable	(17,000)	
Total adjustments		109,000
Net cash provided by operating activities		$201,700
Cash flows from investing activities:		
Payment for purchase of Raush Corporation, $100,000 cash net of $60,000 cash acquired		(40,000)
Cash flows from financing activities:		
Sale of bonds	$ 100,000	
Dividends paid to noncontrolling shareholders	(1,000)	
Decrease in long-term liabilities	(160,000)	(61,000)
Net increase in cash		$100,700
Cash at beginning of year		82,000
Cash at year-end		$182,700

*$870,000 Billing + $460,000 Raush + $18,000 adjustment less current balance of $1,276,000 = $72,000 depreciation.

Problem 5-10, Concluded

Schedule of noncash investing activity:

Billing Enterprises purchased 90% of the capital stock of Raush Corporation for $500,000. In conjunction with the acquisition, liabilities were assumed and a noncontrolling interest created as follows:

Adjusted value of assets acquired		
($615,000 book value + $95,000 excess)	$710,000	
Cash paid for common stock	100,000	
Balance		$610,000
Liabilities assumed	$165,000	
Bonds issued	400,000	
Balance		565,000
NCI	$ 45,000	

Determination and Distribution of Excess Schedule

Price paid	$500,000	
Less interest acquired:		
Common stock	$150,000	
Retained earnings	300,000	
Total stockholders' equity	$450,000	
Interest acquired	× 90%	405,000
Excess of cost over book value (debit balance)		$ 95,000
Equipment ($20,000 × 90%, 5-year life, $3,600 per year) Dr.		18,000
Goodwill Dr.		$ 77,000

PROBLEM 5-11

Subsidiary calculations:

$$\text{BEPS} = \frac{\$56{,}000 - \$4{,}000 \text{ preferred dividends}}{12{,}000} = \$4.33$$

$$\text{DEPS} = \frac{\$52{,}000 + \$4{,}000 \text{ preferred dividends}}{12{,}000 + 1{,}600^{a}} = \$4.12$$

[a]Preferred stock is dilutive, $4,000 ÷ 1,600 = $2.50
Shares = 800 preferred shares × 2 shares of common

Consolidated calculations:

$$\text{BEPS} = \frac{\$55{,}000 - \$500 \text{ preferred dividends} + (9{,}600^{b} \times \$4.33) + (60\% \text{ x } \$4{,}000 \text{ sub. pref div.})}{20{,}000}$$

$$= \frac{\$55{,}000 - \$500 + \$41{,}568 + \$2{,}400}{20{,}000}$$

$$= \$4.92$$

[b]12,000 Sunny shares × 80% interest

$$\text{DEPS} = \frac{\$55{,}000 - \$500 \text{ preferred dividends} + (10{,}560^{c} \times \$4.12 \text{ Sunny DEPS})}{20{,}000 + 245^{d}}$$

$$= \frac{\$55{,}000 - \$500 + \$43{,}507}{20{,}000 + 245}$$

$$= \$4.84$$

[c]9,600 common stock shares + 60% of 1,600 common shares assumed issued on conversion of convertible preferred stock

[d]

Quarter	Dilutive	Shares Outstanding	Total Shares Acquired	Share Adjustment
1	no			
2	no			
3	yes	3,000	36,000 ÷ 13 = 2,769	231
4	yes	3,000	36,000 ÷ 16 = 2,250	750
				981
			Average (for four quarters) =	245

PROBLEM 5-12

Determination and Distribution of Excess Schedule

Price paid for investment in Fink		$320,000
Less interest acquired:		
Total stockholders' equity	$1,000,000	
Interest acquired	× 25%	250,000
Excess of cost over book value (debit balance)		$ 70,000
Attributable to long-lived assets:		
Less undervaluation of building ($40,000 × 0.25, 20 years, $500 per year)		10,000
Dr. Goodwill		$ 60,000
Dr.		

20X6 Income Distribution for Investment in Fink Company

	Reported net income	$48,000
	Adjusted net income	$48,000
	Ownership interest	× 25%
	Share of income	$12,(
	Less excess amortization	500
	Net share of income	$11,500

20X6 Entries:

Cash ($10,000 × 25%)	2,500	
Investment in Fink ($11,500 – $2,500 dividends)	9,000	
Investment Income		11,500
Sales ($8,000 × 25%)	2,000	
Realized Gross Profit (1/20 × $2,000)		100
Deferred Gross Profit		1,900

20X7 Income Distribution for Investment in Fink Company

Profit in ending inventory ($2,000 × 25%)	$500	Reported net income	$50,000
		Adjusted net income	$49,500
		Ownership interest	× 25%
		Share of income	$12,:
		Less excess amortization	500
		Net share of income	$11, 875

Problem 5-12, Concluded

20X7 Entries:

Cash ($10,000 × 25%)	2,500	
Investment in Fink ($11,875 – $2,500 dividends)	9,375	
Investment Income		11,875
Deferred Gross Profit	200	
Realized Gross Profit		200

20X8 Income Distribution for Investment in Fink Company

Profit in ending inventory ($3,000 × 25%)	$750	Reported net income	$65,000
		Beginning inventory profit ($2,000 × 25%)	500
		Adjusted net income	$64,750
		Ownership interest	× 25%
		Share of income	$16,[illegible]
		Less excess amortization	500
		Share of income	$15,687

20X8 Entries:

Cash ($10,000 × 25%)	2,500	
Investment in Fink ($15,687 – $2,500 dividends)	13,187	
Investment Income		15,687
Deferred Gross Profit	200	
Realized Gross Profit		200

PROBLEM 5-13

December 31, 20X6:

Investment in Cramer Company	13,000	
Cash (for dividends)	1,250	
Investment Income		14,250

Reported income of Cramer	$60,000	
Ownership interest	× 25%	$15,000
Less amortizations of excess cost:		
Equipment ($7,500 ÷ 10 years)		750
Adjusted income		$ 14,250

December 31, 20X7:

Investment in Cramer Company	15,675	
Cash (for dividends)	2,500	
Investment Income		18,125
Sales ($4,000 × 40% × 25% interest)	400	
Deferred Gross Profit on Sales to Investee		400

Problem 5-13, Continued

Cramer Company Income Distribution (20X7)

Gain on machine sale	$5,000	Reported net income	$80,000
		Realized gain on machine	500
		Adjusted income	$75,500
		Ownership interest	× 25%
		Interest in income	$18,875
		Less amortization of excess cost (as above)	750
		Net investment income	$18,125

December 31, 20X8:

Investment in Cramer Company	14,425	
Cash (for dividends)	2,500	
Investment Income		16,925
Sales (net increase $1,000 × 40% × 25% interest)	100	
Deferred Gross Profit on Sales to Investee		100

To defer added inventory gain of $400 × 25%.

Cramer Company Income Distribution (20X8)

	Reported net income	$100,000
	Realized gain on machine	1,000
	Adjusted income	$101,000
	Ownership interest	× 25%
	Interest in income	$ 25,250
	Less amortization of excess cost (as above)	750
	Net investment income	$ 24,500

APPENDIX PROBLEMS

PROBLEM 5A-1

(1)

Determination and Distribution of Excess Schedule

Price paid for investment			$308,000			
Less book value interest acquired:						
Common stock	$	50,000				
Paid-in capital in excess of par		100,000				
Retained earnings		150,000				
Total equity		$300,000				
Interest acquired	×	80%	240,000			
Excess of cost over book value (debit)			$ 68,000			
Adjustments:						
			Amortization			
Inventory			$ 8,000	1	debit D1	
Buildings			20,000	10	debit D2	$2,000
Goodwill			40,000		debit D3	
Extraordinary gain			—			
Total adjustments			$ 68,000			

(2) Entries under the equity method:

			20X1 Debit	20X1 Credit	20X2 Debit	20X2 Credit
Investment in Soll	48,000	(1)	72,000	(2)		
Subsidiary Income			48,000		72,000	
Cash	16,000	(3)	24,000	(4)		
Investment in Soll			16,000		24,000	

(1) 80% of $60,000 net income
(2) 80% of $90,000 net income
(3) 80% of $20,000 dividends
(4) 80% of $30,000 dividends

Problem 5A-1, Continued

(3)

Peres Company and Soll Company
Worksheet for Consolidated Financial Statements
For Year Ended December 31, 20X2

	Financial Statements		Eliminations and Adjustments		Non-controlling Interest	Consoli-dated
	Peres	Soll	Dr.	Cr.		
Income Statement:						
Net Sales	(520,000)		(450,000)			
Cost of Goods Sold	300,000		260,000			
Operating Expenses	120,000		100,000	(A) 2,000		
Subsidiary Income	(72,000)		(CY1)	72,000		
Net Income	(172,000)		(90,000)			
Consolidated Net Income						(188,000)
NCI (see income distribution schedule)					(18,000)	
Controlling Interest (see income distribution schedule)						(170,000)
Retained Earnings Statement:						
Balance, Jan. 1, 20X2—Peres	(214,000)		(D1)	8,000		
			(A)	2,000		
Balance, Jan. 1, 20X2—Soll		(190,000)	(EL)	152,000		(38,000)
Net Income (from above)	(172,000)		(90,000)			(18,000)
Dividends Declared—Peres	50,000					
Dividends Declared—Soll		30,000		(CY2)	24,000	6,000
Balance, December 31, 20X2	(336,000)		(250,000)			(50,000)
Consolidated Balance Sheet:						
Inventory, December 31	100,000		50,000			
Other Current Assets	148,000		180,000			
Investment in Soll Company	388,000		(CY2)	24,000	(CY1) 72,000	
				(EL) 272,000		
				(D) 68,000		
Land	50,000		50,000			
Building and Equipment	350,000		320,000	(D2) 20,000		
Accumulated Depreciation	(100,000)		(60,000)	(A)	4,000	
Goodwill			(D3)	40,000		
Other Intangibles	20,000					
Current Liabilities	(120,000)		(40,000)			
Bonds Payable		(100,000)				
Other Long-Term Liabilities	(200,000)					
Common Stock—Peres	(200,000)					
Other Paid-In Capital—Peres	(100,000)					
Common Stock—Soll		(50,000)	(EL)	40,000		(10,000)
Other Paid-In Capital—Soll		(100,000)	(EL)	80,000		(20,000)
Retained Earnings, Dec. 31, 20X2 (carrydown)	(336,000)		(250,000)			
Retained Earnings—Controlling Interest, Dec. 31, 20X2						(324,000)
Retained Earnings—NCI Dec. 31, 20X2					(50,000)	
Total NCI					80,000	
Totals	0	0	440,000		440,000	0

Problem 5A-1, Concluded

See solution to Problem 3-2 for D&D schedule.

Eliminations and Adjustments:

(CY) Eliminate the current-year entries made in the investment account and in the subsidiary income account.

(EL) Eliminate the pro rata share of Soll Company equity balances at the beginning of the year against the investment account.

(D) Distribute the $68,000 excess cost as required by the determination and distribution of excess schedule.

(D1) Because FIFO is used for inventory, allocate the $8,000 write-up to the January 1, 20X2, retained earnings of Peres Company.

(D2) Building, $20,000.

(D3) Goodwill, $40,000.

(A) Cumulatively depreciate the write-up to Building over 10 years. Charge the 20X1 Depreciation against January 1, 20X1, retained earnings of Peres Company. Charge the 20X2 Depreciation to Operating Expenses.

Income Distribution Schedules

Soll Company

	Internally generated net income	$90,000
	Adjusted income	$90,000
	NCI share	× 20%
	NCI	$18,000

Peres Company

Building depreciation	$2,000	Internally generated net income	$100,000
		80% × Soll adjusted net income	72,000
		Controlling interest	$170,000

PROBLEM 5A-2

Determination and Distribution of Excess Schedule

Price paid for investment		$854,000			
Less book value interest acquired:					
Common stock	$150,000				
Paid-in capital in excess of par	200,000				
Retained earnings	400,000				
Total equity	$750,000				
Interest acquired	× 80%	600,000			
Excess of cost over book value (debit)		$254,000			
Adjustments:					
Amortization					
Land		$ 16,000		debit D1	
Equipment		64,000	10	debit D2	$6,400
Buildings		48,000	20	debit D3	2,400
Goodwill		126,000		debit D4	
Extraordinary gain		—			
Total adjustments		$254,000			

Eliminations and Adjustments:

(CY1) Eliminate the current-year entries made in the investment account to arrive at the January 1, 20X7, balance.
(CY1) 80% of subsidiary loss.
(CY2) 80% of subsidiary dividends.
(EL) Eliminate the 80% ownership portion of the beginning of the year subsidiary equity accounts against the investment.
(D) Distribute the excess cost as follows, in accordance with the determination and distribution of excess schedule:
(D1) Increase Land by $16,000.
(D2) Increase Equipment by $64,000.
(D3) Increase Buildings by $48,000.
(D4) Create Goodwill, $126,000.
(A) Record amortizations resulting from the revaluations:
(A1) No amortization required.
(A2) Record $6,400 annual increase in equipment depreciation for current and prior years.
(A3) Record $2,400 annual increase in building depreciation for current and prior years.

Problem 5A-2, Continued

Booker Enterprises and Kobe International
Worksheet for Consolidated Financial Statements
For Year Ended December 31, 20X7

	Financial Statements		Eliminations and Adjustments				Non-controlling Interest	Consoli-dated
	Booker	Kobe	Dr.		Cr.			
Income Statement:								
Sales	(650,000)		(320,000)					
Cost of Goods Sold	260,000		240,000					
Operating Expenses	170,000		70,000					
Depreciation Expenses	65,000		30,000	(A2–A3)	8,800			
Subsidiary Income/Loss	16,000				(CY1)		16,000	
Net (Income) Loss	(139,000)		20,000					
Consolidated Net Income								(126,200)
Noncontrolling Interest (see distribution schedule)							4,000	
Controlling Interest (see distribution schedule)								(130,200)
Retained Earnings:								
Retained Earnings, Jan. 1, 20X7—Booker	(625,000)		(A2–A3)	17,600				
								(607,400)
Retained Earnings, Jan. 1, 20X7—Kobe		(460,000)	(EL)	368,000				(92,000)
Net (Income) Loss (carrydown)	(139,000)		20,000					4,000
Dividends Declared		10,000			(CY2)		8,000	2,000
Retained Earnings, Dec. 31, 20X7	(764,000)		(430,000)					
NCI in Retained Earnings, Dec. 31, 20X7							(86,000)	
Controlling Interest in Retained Earnings, Dec. 31, 20X7								(737,600)
Balance Sheet:								
Cash	284,000		170,000					
Inventory	135,000		400,000					
Land	145,000		150,000	(D1)	16,000			
Buildings	900,000		500,000	(D3)	48,000			
Accum. Deprec.—Building	(345,000)		(360,000)			(A3)	7,200	
Equipment	350,000		250,000	(D2)	64,000			
Accum. Deprec.—Equipment	(135,000)		(90,000)			(A2)	19,200	
Investment in Kobe	878,000		(CY1)	16,000		(EL)	648,000	
			(CY2)	8,000	(D)		254,000	
Goodwill			(D4)	126,000				
Liabilities	(248,000)		(40,000)					
Bonds Payable		(200,000)						
Common Stock—Booker	(1,200,000)							
Common Stock—Kobe		(150,000)	(EL)	120,000				(30,000)
Paid-In Capital in Excess of Par—Kobe		(200,000)	(EL)	160,000				(40,000)
Retained Earnings, Dec. 31, 20X7 (carrydown)	(764,000)		(430,000)					
Retained Earnings—Controlling Interest, Dec. 31, 20X7								(737,600)
Retained Earnings—NCI, Dec. 31, 20X7							(86,000)	
Total NCI							(156,000)	
Total	0	0	952,400				952,400	

Problem 5A-2, Concluded

Subsidiary Kobe International Income Distribution

Internally generated net loss	$20,000	
Adjusted loss	$20,000	
NCI share	× 20%	
NCI	$ 4,000	

Parent Booker Enterprises Income Distribution

Building depreciation	$ 2,400	Internally generated net income	$155,000
Equipment depreciation	6,400		
80% × Kobe adjusted loss of $20,000	16,000		
		Controlling interest	$130,200

PROBLEM 5A-3

Determination and Distribution of Excess Schedule

Price paid for investment		$740,000			
Less book value interest acquired:					
Common stock	$350,000				
Paid-in capital in excess of par	—				
Retained earnings	200,000				
Total equity	$550,000				
Interest acquired	× 90%	495,000			
Excess of cost over book value (debit)		$245,000			
Adjustments:					
Amortization					
Buildings		$162,000	20	debit D1	$8,100
Goodwill		83,000		debit D2	
Extraordinary gain		—			
Total adjustments		$245,000			

Problem 5A-3, Continued

Harvard Company and Subsidiary Benz Company
Worksheet for Consolidated Financial Statements
For Year Ended December 31, 20X2

	Financial Statements		Eliminations and Adjustments				Non-controlling Interest	Consoli-dated
	Harvard	Benz	Dr.		Cr.			
Income Statement:								
Sales	(580,000)		(280,000)					
Cost of Goods Sold	285,000		155,000					
Operating Expenses	140,000		55,000					
Depreciation Expenses	72,000		30,000	(A)	8,100			
Dividend Income	(9,000)			(CY2)	9,000			
Net Income	(92,000)		(40,000)					
Consolidated Net Income								(114,900)
Noncontrolling Interest (see distribution schedule)							(4,000)	
Controlling Interest (see distribution schedule)								(110,900)
Retained Earnings Statement:								
Retained Earnings, Jan. 1, 20X2—Harvard	(484,000)				(CV)		108,000	
			(A)	8,100				
Retained Earnings, Jan. 1, 20X2—Benz		(320,000)		(EL)	288,000			(32,000)
Net Income (carrydown)	(92,000)		(40,000)					(4,000)
Dividends Declared	20,000		10,000			(CY2)	9,000	
Retained Earnings, Dec. 31, 20X2	(556,000)		(350,000)					
Noncontrolling Interest in Retained Earnings, Dec. 31, 20X2							(35,000)	
Controlling Interest in Retained Earnings, Dec. 31, 20X2								(674,800)
Balance Sheet:								
Cash	310,000		170,000					
Inventory	260,000		340,000					
Land	99,000		150,000					
Building	800,000		500,000	(D1)	162,000			
Accum. Deprec.—Building	(380,000)		(360,000)			(A)	16,200	
Equipment	340,000		250,000					
Accum. Deprec.—Equipment	(190,000)		(90,000)					
Investment in Benz Company	740,000			(CV)	108,000			
				(EL)		603,000		
				(D)		245,000		
Goodwill			(D2)	83,000				
Current Liabilities	(123,000)		(60,000)					
Bonds Payable		(200,000)						
Common Stock—Harvard	(800,000)							
Paid-In Capital in Excess of Par—Harvard	(500,000)							
Common Stock—Benz		(350,000)		(EL)	315,000			(35,000)
Retained Earnings (carrydown)	(556,000)		(350,000)					
Retained Earnings—Controlling Interest, Dec. 31, 20X2								(674,800)
Retained Earnings—NCI Dec. 31, 20X2							(35,000)	
Total NCI							(70,000)	
Total	0	0	981,200				981,200	

Problem 5A-3, Concluded

Eliminations and Adjustments:

(CV) Convert from the cost to the equity method as of January 1, 20X2 [90% × ($320,000 – $200,000)].

(CY2) Eliminate the 90% ownership portion of the subsidiary dividends.

(EL) Eliminate the 90% ownership portion of the subsidiary equity accounts against the investment.

(D) Distribute the excess cost as follows, in accordance with the determination and distribution of excess schedule:

(D1) Increase Building by $162,000.

(D2) Increase Goodwill $83,000.

(A) Record amortizations resulting from the revaluations of Entry 3. Record $8,100 annual increase in building depreciation for current and prior years.

Subsidiary Benz Company Income Distribution

	Internally generated net income	$40,000
	Adjusted income	$40,000
	NCI share	× 10%
	NCI	$ 4,000

Parent Harvard Company Income Distribution

Building depreciation	$8,100	Internally generated net income	$ 83,000
		90% × Benz adjusted income of $40,000	36,000
		Controlling interest	$110,900

PROBLEM 5A-4

Arther Corporation and Subsidiary Trent Inc.
Worksheet for Consolidated Financial Statements
For Year Ended December 31, 20X4

	Trial Balance		Eliminations and Adjustments				
	Consolidated Arther	Trent		Dr.		Cr.	Balance
Income Statement:							
Net Sales	(1,900,000)		(1,500,000)	(IS)		180,000	
Divided Income (from Trent)	(40,000)	.....		(CY2)	40,000	.....	.....
Cost of Goods Sold	1,180,000	870,000	(EI)	18,000	(IS)	180,000	1,888,000
Operating Expenses (including depreciation)	550,000	440,000	(A1)	9,000	(F2)	4,000	995,000
Consolidated Net Income	(210,000)		(190,000)	.....		.....	
Retained Earnings Statement:							
Balance, January 1, 20X4	(250,000)		(206,000)	(EL)		206,000(CV)	 50,000
	.....	.....	(A1)	18,000		.....	.....
	.....	.....	(F1)	24,000		.....	(258,000)
Net Income	(210,000)		(190,000)	.....		.....	
Dividends Paid	.....	40,000		.....	(CY2)	40,000	.....
Balance, December 31, 20X4	(460,000)		(356,000)	.....		.....	
Balance Sheet:							
Cash	285,000	150,000		.....		.....	435,000
Accounts Receivable (net)	430,000	350,000		.....	(IA)	75,000	705,000
Inventories	530,000	410,000		.....	(EI)	18,000	922,000
Land, Building, and Equipment	660,000	680,000	(D1)	54,000	(F1)	30,000	1,364,000
Accumulated Depreciation	(185,000)		(210,000)	(F1)		6,000 (A1)	 27,000
	.....	.....	(F2)	4,000		.....	(412,000)
Investment in Trent Inc.	750,000	.....	(CV)	50,000	(EL)	686,000	.....
	.....	.....		.....	(D)	114,000	.....
Goodwill	.....	.....	(D2)	60,000		.....	60,000
Accounts Payable and Accrued Expenses	(670,000)		(544,000)	(IA)		75,000	
Common Stock ($10 par)	(1,200,000)		(400,000)	(EL)		400,000	
Additional Paid-In Capital	(140,000)		(80,000)	(EL)		80,000	
Retained Earnings	(460,000)		(356,000)	.....		.....	
	0	0		1,224,000		1,224,000	0

Eliminations and Adjustments:

(CV) Convert to equity method as of January 1, 20X4, 100% × $50,000 increase.
(CY2) Eliminate intercompany dividends.
(EL) Eliminate subsidiary equity against investment account.
(D) Distribute excess $54,000 to Land, Building, and Equipment, $60,000 to Goodwill.
(A1) Amortize excess applicable to machine for 2 prior years and current year.
(F1) Eliminate intercompany profit on warehouse at start of year: $10,000 Land, $20,000 Building less one and one-half year's amortization of $4,000 per year (or $6,000).
(F2) Correct Depreciation for intercompany profit, $4,000.
(IS) Eliminate intercompany sales, $180,000.
(EI) Eliminate intercompany profit in ending inventory, 50% × $36,000.
(IA) Eliminate intercompany trade debt.

Problem 5A-4, Concluded

Determination and Distribution of Excess Schedule

Price paid		$750,000	
Less interest acquired:			
Common stock ($10 par)	$400,000		
Additional paid-in capital	80,000		
Retained earnings	156,000		
Total stockholders' equity	$636,000		
Interest acquired	× 100%	636,000	
Excess of cost over book value (debit balance)		$114,000	
Machinery (6-year life, $9,000 per year) D1		$ 54,000	Dr.
Goodwill D2		60,000	Dr.
Total adjustments		$114,000	

Subsidiary Trent Inc. Income Distribution

Unrealized gross profit in ending inventory	$18,000	Internally generated net income	$190,000
		Adjusted income	$172,000

Parent Arther Corporation Income Distribution

Amortization of excess attributed to machinery	$9,000	Internally generated net income	$170,000
		100% × Trent adjusted income of $172,000	172,000
		Gain realized through use of warehouse	4,000
		Controlling interest	$337,000

PROBLEM 5A-5

Peanut Company and Subsidiary Sam Company
Worksheet for Consolidated Financial Statements
For Year Ended December 31, 20X2

	Financial Statements		Eliminations and Adjustments					Consolidated	
	Peanut	Sam		Dr.		Cr.		NCI	Balance
Income Statement:									
Net Sales	(600,000)	(315,000)		(IS)	40,000				
Cost of Goods Sold	350,000	150,000	(EI)	5,000	(BI)	10,000			455,000
					(IS)	40,000			
Operating Expenses	150,000	60,000	(A2)	5,000	(F2)	3,000			212,000
Subsidiary Income	(84,000)			(CY1)	84,000				
Net Income (Loss)	(184,000)		(105,000)						
NCI								(22,000)	
Controlling Interest									(186,000)
Retained Earnings:									
Retained Earnings, January 1, 20X2—Peanut	(320,000)			(D1)	10,000				
			(A2)	5,000					
			(BI)	8,000					
			(F1)	15,000					
Retained Earnings, January 1, 20X2—Sam		(150,000)		(EL)	120,000				
			(BI)	2,000				(28,000)	
Net Income (from above)	(184,000)		(105,000)						(22,000)
Dividends Declared—Peanut	60,000								60,000
Dividends Declared—Sam		20,000			(CY2)	16,000		4,000	
Balance, December 31, 20X2	(444,000)		(235,000)						(46,000)
Consolidated Balance Sheet:									
Inventory, December 31	130,000	50,000			(EI)	5,000			175,000
Other Current Assets	241,000	235,000							476,000
Investment in Sam	308,000		(CY2)	16,000	(CY1)	84,000			
					(EL)	200,000			
					(D)	40,000			
Other Long-Term Investments	20,000								20,000
Land	140,000	80,000							220,000
Building and Equipment	375,000	200,000	(D2)	20,000	(F1)	15,000			580,000
Accumulated Depreciation	(120,000)		(30,000)			(A2)		10,000	
			(F2)	3,000					
Goodwill			(D3)	10,000					10,000
Other Intangibles		20,000							20,000
Current Liabilities	(150,000)		(70,000)						
Bonds Payable		(100,000)							(100,000
Other Long-Term Liabilities	(200,000)		(50,000)						
Common Stock—Peanut	(200,000)								(200,000
Other Paid-In Capital—Peanut	(100,000)								(100,000
Common Stock—Sam		(50,000)	(EL)		40,000				(10,000)
Other Paid-In Capital—Sam		(50,000)	(EL)		40,000				(10,000)
Retained Earnings, December 31, 20X2 (from above)	(444,000)		(235,000)						(46,000)
Total NCI								66,000	(66,000)
Balance	0	0		423,000		423,000		0	0

Problem 5A-5, Continued

Eliminations and Adjustments:

(CY1) Eliminate the current-year subsidiary income recorded by the parent.
(CY2) Eliminate intercompany dividends.
(EL) Eliminate 80% of the subsidiary company equity balances at the beginning of the year against the investment account.
(D) Allocate the $40,000 excess of cost over book value to Inventory, Equipment, and Goodwill. The $10,000 (80% of $12,500) write-up to inventory is charged to parent's Retained Earnings because FIFO is used. The $20,000 (80% of $25,000) write-up to Equipment is charged to Buildings and Equipment. The $10,000 remaining excess is charged to Goodwill.
(A2) Amortize the equipment write-up over 4 years, with $5,000 for 20X1 charged to Retained Earnings, and $5,000 for 20X2 to Operating Expenses.
(BI) Eliminate the $10,000 of gross profit in the beginning inventory.
(IS) Eliminate the entire intercompany sales of $40,000.
(EI) Eliminate the $5,000 of gross profit in the ending inventory.
(F1) Eliminate the $15,000 20X1 gain on sale of equipment and restore the equipment account to cost.
(F2) Eliminate the $3,000 of excess depreciation for 20X2 on the transferred equipment.

Determination and Distribution of Excess Schedule

Price paid for investment.....		$200,000			
Less book value of interest acquired:					
Common stock, par	$ 50,000				
Paid-in capital in excess of par	50,000				
Retained earnings	100,000				
Total stockholders' equity	$200,000				
Interest acquired	× 80%	160,000		Amortization	
Excess of cost over book value (debit)...		$ 40,000		Periods	
..... Amortization					
Inventory ($12,500 × 80%)		$ 10,000	debit D1	1	$10,000
Buildings and equipment ($25,000 × 80%).....		20,000	debit D2	4	5,000
Goodwill		10,000	debit D3		
Total adjustments.....		$ 40,000			

Problem 5A-5, Concluded

Subsidiary Sam Company Income Distribution

Ending inventory profit	$5,000	Internally generated net income.....	$105,000
		Beginning inventory profit.....	10,000
		Adjusted income.....	$110,000
		NCI share.....	× 20%
		NCI.....	$ 22,000

Parent Peanut Company Income Distribution

Equipment depreciation	$5,000	Internally generated net income	$100,000
		Realized gain on equipment sale	3,000
		80% × Sam adjusted income of $110,000.....	88,000
		Controlling interest	$186,000

CHAPTER 6

UNDERSTANDING THE ISSUES

1. If the U.S. dollar strengthens relative to a FC, this means that the dollar commands more FC. The direct exchange rate will change in that 1 FC will be worth fewer dollars. If a U.S. exporter of goods and services generates sales that are denominated in FC, they will be exposed to exchange rate risk. The dollar equivalent of the FC received from export customers will decrease as the dollar strengthens. If export sales are denominated in U.S. dollars, then foreign customers will have to give up more of their FC in order to acquire the necessary dollars. This means that U.S. goods and services would be more expensive and perhaps less attractive to foreign customers.

2. If the U.S. dollar is weakening against the FC, then more dollars will be required to settle FC purchases and exchange losses will be experienced. These losses could be hedged against through the use of a forward contract to buy FC. Given a fixed forward rate, the holder of the contract will know exactly how many dollars it will take to secure the necessary FC. As the value of the payable to the foreign vendor increases with resulting losses, the value of the forward contract will increase with resulting gains. Both the transaction losses and hedging gains will be recognized in current earnings. If the hedge is properly structured, it could be highly effective in offsetting the effects of a weakening U.S. dollar.

3. A commitment to purchase inventory payable in FC is characterized by a fixed number of FCs. However, the exchange rate for the FC is subject to change; therefore, the commitment may cost the purchaser more or less equivalent dollars as rates change. The commitment to purchase would become less attractive if the number of dollars needed to acquire the fixed number of FCs increases over time. This would be the case if the dollar weakened relative to the FC. As the dollar cost of the purchase increases, future gross profits decrease. This risk could be effectively hedged if the U.S. company secured the right to acquire the necessary FC at a fixed rate. Such a hedge could be accomplished through the use of a forward contract or option to buy FC at the future transaction date. The losses on the commitment could be offset by gains on the hedging instruments. Furthermore, the firm commitment account would then be used to adjust the basis of the acquired inventory at the date of the actual purchase transaction. The basis adjustment would reduce the cost of the inventory and allow for otherwise increased profit margins.

4. The cash flow hedging instrument would be measured at fair value with changes prior to the transaction date being recognized as a component of other comprehensive income (OCI), rather than in current earnings. When the forecasted transaction actually occurs, it will at some point in time have an effect on earnings. In the case of purchased equipment, the effect on earnings will be recognized as depreciation expense. When the transaction affects earnings, the amounts initially recognized as OCI will also be reclassified into current earnings. It is important to note that this reclassification will occur in the same period or periods of earnings as are affected by the forecasted transaction. In the case of equipment, amounts in OCI will be reclassified and recognized as current earnings in the same periods as is depreciation expense. Furthermore, the pattern of depreciation (e.g., straight-line, accelerated) will also apply to the recognition of the OCI.

EXERCISES

EXERCISE 6-1

June	1	Reconditioned Equipment	234,100	
		Accounts Payable		234,100
		To record purchase of the equipment when 1 € = $1.1705.		
Throughout June		Reconditioned Equipment	93,656	
		Cash		93,656
		To record cost associated with reconditioning the equipment when average June 20X5 1 € = $1.1707.		
June	28	Accounts Payable	234,100	
		Exchange Loss	80	
		Cash		234,180
July	15	Accounts Receivable	409,850	
		Sales		409,850
		Cost of Goods Sold	327,756	
		Reconditioned Equipment		327,756
		To record the sale of reconditioned equipment when 1 € = $1.1710. (Cost = $234,100 + $93,656)		
Aug.	10	Cash	409,920	
		Accounts Receivable		409,850
		Exchange Gain		70
		To settle the accounts receivable when 1 € = $1.1712.		

EXERCISE 6-2

	Direct Spot Rate	Indirect Spot Rate
(1) January 1, 20X5	1 FC = $0.125	$1 = 8 FC

Exercise 6-2, Concluded

(2)

	U.S. Dollars	Foreign Currency (FC)
Value today	$100	800 FC
Interest rate	4%	5%
180 days of interest	1.97260	19.72603
Value in 90 days	$101.97260	819.72603 FC

180-day forward rate = $101.97260/819.72603 FC
1 FC = $0.1244

Alternatively, using the formula method:

$$\text{Forward rate} = 0.125 \times \frac{1 + 0.0197}{1 + 0.0246} = 0.1244$$

(3) This suggests that the domestic (U.S.) interest rates are higher than those of the foreign (Canadian) country. Assume that one wants to buy foreign currency in the future; therefore, they retain and invest dollars until the future time arrives. The value of the invested dollars would be more than the value that would have been achieved if FC were originally acquired and invested at foreign rates. The value of the dollar relative to the FC has risen over time, and a higher forward rate, relative to the present spot rate, is thus called for.

(4) When the U.S. dollar is weak relative to a FC, it takes more U.S. dollars to equal the FC. Alternatively, it takes fewer FCs to acquire a U.S. dollar. Consequently, it takes fewer FCs to purchase a given amount of U.S. goods priced in dollars after the U.S. dollar has weakened. This causes U.S. exports to be less expensive, and exports consequently increase.

(5) If the dollar strengthened relative to the FC, the amount of FC would increase, and the forward rate would decrease.

EXERCISE 6-3

As of	Value of Accounts Payable	Cumulative Gain/Loss on FC Transaction	Forward Value of Forward Contract	Cumulative Gain/Loss on Forward Contract
12/1	75,000 FC × $1.40 = $105,000	—	75,000 FC × $1.45 = $108,750	—
12/31	75,000 FC × $1.43 = $107,250	($1.40 – $1.43) × 75,000 FC = ($2,250)	75,000 FC × $1.47 = $110,250	$1,485*
3/1	75,000 FC × $1.48 = $111,000	($1.40 – $1.48) × 75,000 FC = ($6,000)	75,000 FC × $1.48 = $111,000	($1.48 – $1.45) × 75,000 FC = $2,250

*$110,250 – $108,750 = $1,500 change in forward value. Present value of $1,500 change, when n = 2 and i = 6%/12 is $1,485.

EXERCISE 6-4

(1) Apr. 15 No entry

May	1	Inventory	343,500	
		Accounts Payable		343,500
		To record the purchase of inventory when the spot rate was 1 FC = $0.687.		
		Forward Contract Receivable—FC	346,500	
		Forward Contract Payable—$		346,500
		To record the purchase of forward contract when the forward rate is 1 FC = $0.693.		
June	30	Exchange Loss	2,000	
		Accounts Payable		2,000
		To accrue the exchange loss at year-end when the spot rate is 1 FC = $0.691.		
		Forward Contract Receivable—FC	995	
		Gain on Forward Contract		995
		To record change in value of forward contract when forward rate is 1 FC = $0.695. Change in value of forward contract is $1,000 [500,000 FC × ($0.695 – $0.693)]. (FV = 1,000; n = 1, i = 6%/12)		
Aug.	1	Forward Contract Receivable—FC	505	
		Gain on Forward Contract		505
		To record change in value of forward contract when 1 FC = $0.696. Total change in forward value is $1,500 [500,000 FC × ($0.696 – $0.693)]. Total change of $1,500 less $995 previously recognized = $505.		
		Forward Contract Payable—$	346,500	
		Foreign Currency	348,000	
		Cash		346,500
		Forward Contract Receivable—FC		348,000
		To record settlement of forward contract when spot rate is 1 FC = $0.696.		
		Accounts Payable	345,500	
		Exchange Loss	2,500	
		Foreign Currency		348,000
		To settle the account payable when the spot rate is 1 FC = $0.696.		

Exercise 6-4, Concluded

(2)

Stark Inc.
Partial Income Statement
For the Year Ended June 30

Exchange loss	$(2,000)
Gain on forward contract	995
Net income effect	$ 1,005

Stark Inc.
Partial Balance Sheet
As of June 30

Inventory	$343,500	Accounts payable	$345,500
Forward contract receivable—FC	347,495	Forward contract payable—FC	346,500
		Net income effect	1,005

EXERCISE 6-5

Under the alternative involving a forward contract, the company would have to spend $248,000 (400,000 FC × $0.62) in order to secure the 400,000 FC necessary to settle the exposed liability position.

Under the loan alternative, the balance due on the loan at maturity will be the equivalent of $243,200 [$240,000 + ($240,000 × 8% × 60/360)]. In order for the company to receive the 400,000 FC necessary to settle the exposed liability position, the spot rate when the loan is settled must be 1 FC = $0.608 ($243,200 ÷ 400,000 FC).

If the actual spot rate on July 31 is less than $0.62, the loan would be the more attractive alternative.

However, if the spot rate is more than $0.62, the forward contract would be more attractive. In the final analysis, the choice of the right alternative depends on what the actual spot rate is on July 31. This exercise emphasizes that the choice of a hedging strategy is dependent on one's estimate of how spot rates will change over time. For example, if one thought that the July 31 spot rate would be less than $0.608, then neither alternative would be preferable to not taking a hedged position.

EXERCISE 6-6

(1)

	Hedge of a Commitment Using		Hedge of a Forecasted Transaction	
	Forward Contract	Option	Forward Contract	Option
Prior to transaction date:				
Gain (loss) on commitment [100,000 FC × ($1.25 – $1.32)]	$ (7,000)	$ (7,000)		
Gain (loss) on hedging instrument:				
Forward contract [100,000 FC × ($1.32 – $1.25)]	7,000		—	
Option [100,000 FC × ($1.32 spot – $1.25 strike)]		7,000		—
Gain (loss) excluded from hedge effectiveness:				
Forward contract [100,000 FC × ($1.27 – $1.25)]	(2,000)	$ (2,000)		
Option (premium paid is all time value)		(2,100)	—	$ (2,1
Effect on earnings	$ (2,000)	$ (2,100)	$ (2,000)	$ (2,1
Subsequent to transaction date:				
Sales revenue	160,000	160,000	160,000	160,000
Cost of sales—inventory cost (100,000 FC × $1.32)	(132,000)	(132,000)	(132,000)	(132,000)
Cost of sales—adjustment of inventory basis	7,000	7,000		
Reclassification of other comprehensive income			7,000	7,00
Effect on earnings	$ 35,000	$ 35,000	$ 35,000	$ 35,0
Total effect on earnings	$ 33,000	$ 32,900	$ 33,000	$ 32,9

(2) Based on the above analysis, it would appear that the decision to commit to the purchase or forecast the purchase would have the same net effect on earnings if a forward contract were used. Furthermore, this would be the case even if the rates moved in the opposite direction as that assumed. Therefore, if a forward contract were used, Jackson's decision should focus on other factors. The legal form of a commitment is certainly much different from that of a forecasted transaction. Jackson would have much less flexibility with a commitment.

Given the use of an option, it would appear that the decision to commit to the purchase or forecast the purchase would have the same net effect on earnings. The use of an option would have a slightly greater time value cost than that of a forward contract ($2,100 vs. $2,000). However, when compared to a forward contract, it is important to remember that an option represents a right rather than an obligation. Therefore, if spot rates declined, there would be a gain on the commitment and the option would lose value but only to the extent of the premium. If this occurred, the result would be a hedge that was not highly effective. In that case the special accounting treatment for a fair value or cash flow hedge would not be available. This would result in the cost of the inventory being represented by the actual lower price paid and there would be no adjustment of basis or reclassification of other comprehensive income. The company would incur the premium cost on an option that was not used. Therefore, if spot rates declined, the option would allow for greater potential gross profits.

In conclusion, it would appear that the best alternative would be to forecast the transaction and hedge the forecast with an option.

Exercise 6-6, Concluded

Note: If spot rates were to decline below the original rate of 1 FC = $1.25 and fall to 1 FC = $1.18, the alternatives would appear as follows:

	Hedge of a Commitment Using		Hedge of a Forecasted Transaction	
	Forward Contract	Option*	Forward Contract	Option*
Prior to transaction date:				
Gain (loss) on commitment [100,000 FC × ($1.25 – $1.18)]	$ 7,000			
Gain (loss) on hedging instrument:				
Forward contract [100,000 FC × ($1.18 – $1.25)]	(7,000)			
Option (no intrinsic value – spot < strike)				
Gain (loss) excluded from hedge effectiveness:				
Forward contract [100,000 FC × ($1.27 – $1.25)]	(2,000)		$ (2,000)	
Option (premium paid is all time value)		$ (2,100)		$ (2,1
Effect on earnings	$ (2,000)	$ (2,100)	$ (2,000)	$ (2,1
Subsequent to transaction date:				
Sales revenue	160,000	160,000	160,000	160,000
Cost of sales—inventory cost (100,000 FC × $1.18)	(118,000)	(118,000)	(118,000)	(118,000)
Cost of sales—adjustment of inventory basis	(7,000)			
Reclassification of other comprehensive income			(7,000)	
Effect on earnings	$ 35,000	$ 42,000	$ 35,000	$ 42,0
Total effect on earnings	$ 33,000	$ 39,900	$ 33,000	$ 39,9

*As previously discussed, due to the asymmetric risk profile of an option, the hedge would not be highly effective and therefore not qualify for special accounting treatment.

EXERCISE 6-7

Relating to Purchase of Equipment and Materials			Relating to Purchase of Forward Contract		
June 1, 20X8					
Equipment	1,320,000		Forward Contract Receivable—FC	1,551,200	
Accounts Payable		1,320,000	Forward Contract Payable—$		1,551,200
To record purchase of equipment when the spot rate is 1 FC = $1.10.			To record purchase of forward contract when forward rate is 1 FC = $1.108 (1,400,000 FC × $1.108).		
June 30, 20X8					
Exchange Loss	60,000		Forward Contract Receivable—FC	45,373	
Accounts Payable		60,000	Premium Expense	4,800	
To accrue loss when the spot rate is 1 FC = $1.15.			Unrealized Gain on Contract		50,173
			To record gain on transaction hedge measured as the change in forward rates [1,200,000 FC × ($1.146 – $1.108)] discounted for 1 month. Premium on 1,200,000 FC is a total of $9,600.		
			Forward Contract Receivable—FC	7,562	
			Premium Expense	800	
			Other Comprehensive Income		8,362
			To record gain on hedge of forecasted transaction [200,000 FC × ($1.146 – $1.108)] discounted for 1 month. Premium on 200,000 FC is $1,600.		

Exercise 6-7, Concluded

July 31, 20X8

Accounts Payable	1,380,000	
Exchange Gain		12,000
Foreign Currency		1,368,000
To record settlement of liability when 1 FC = $1.14.		
Raw Materials	228,000	
Foreign Currency		228,000
To record purchase of raw materials (200,000 FC × $1.14).		

Loss on Contract	2,143	
Premium Expense	4,800	
Forward Contract Receivable—FC		6,973
To record loss on transaction hedge [1,200,000 × ($1.140 – $1.108)] = 38,400 – 45,373 = 6,973.		
Other Comprehensive Income	362	
Premium Expense	800	
Forward Contract Receivable—FC		1,162
To record loss on forecasted transaction [200,000 × ($1.140 – $1.108)] = 6,400 – 7,562 = 1,162.		
Foreign Currency	1,596,000	
Forward Contract Payable—$	1,551,200	
Forward Contract Receivable—FC		1,596,000
Cash		1,551,200
To record settlement of forward contract when the spot rate is 1 FC = $1.14.		

EXERCISE 6-8

Event A:	Without the Hedge	With the Hedge
Transaction exchange gain (loss)		
[100,000 FC × ($1.10 – $1.15)]	$(5,000)	$(5,000)
Forward contract gain (loss)		
[100,000 FC × ($1.11 – $1.15)]		4,000
Net income effect	$(5,000)	$(1,000)

Event B:	Without the Hedge	With the Hedge
Gain on commitment		
[(200,000 FC × ($1.172 – $1.15)]		
discounted 1 month		$ 4,378
Sales [200,000 FC × $1.17]	$ 234,000	234,000
Adjustment to basis of sale		(4,378)
Cost of inventory	(120,000)	(120,000)
Transaction exchange gain (loss)		
[200,000 FC × ($1.18 – $1.17)]	2,000	2,000
Forward contract gain (loss)		
[200,000 FC × ($1.18 – $1.15)]		(6,000)
Net income effect	$ 116,000	$ 110,000

Event C:	Without the Hedge	With the Hedge
Sales	$100,000	$100,000
Cost of inventory:		
(68,000 FC × $1.17)	(79,560)	
(68,000 FC × $1.15)		(78,200)
Net income effect	$ 20,440	$ 21,800

PROBLEMS

PROBLEM 6-1

Transaction A:

	Gain (Loss)
Exchange gain on exposed payable	
[100,000 FC × ($1.14 – $1.15)]	$ 1,000
Loss on forward contract.....	(796)*
	$ 204

*The total change in value of the contract is a loss of $796 [100,000 FC × ($1.138 – $1.146)] = $800. The NPV of $800 where n = 1 and i = 6%/12 = $796.

Transaction B:

	Gain (Loss)
Gain on commitment	
[100,000 FC × ($1.15 – $1.132)]	$ 1,800
Loss on forward contract	
[100,000 FC × ($1.15 – $1.132)]	(1,800)
Adjustment to basis of sales revenue.....	(1,800)
	$(1,800)

Transaction C:

	Gain (Loss)
Change in time value	
[100,000 FC × ($1.12 – $1.132)]	$(1,200)
Depreciation expense	
[(100,000 FC × $1.15) ÷ 60 months]	(1,917)
Reclassification of other comprehensive income as current earnings	
[100,000 FC × ($1.15 – $1.132) + $1,200]	
Time value = $3,000 ÷ 60 months.....	50
	$(3,067)

Transaction D:

Change in time value*.....	$ (200)

*On November 30, the intrinsic value is $500 and the time value is $700, versus December 31, when the intrinsic value is $1,500 and the time value is $500. Therefore, the change in time value is a loss of $200.

PROBLEM 6-2

(1)

Relating to the Construction and Sale

May 31		
Construction in Progress.....	300,000	
Cash.....		300,000
To record costs incurred.		
Construction in Progress.....	222,000	
Accounts Payable		222,000
To record cost of equipment purchased (200,000 × $1.11).		

Relating to the Forward Contract

May 15		
Forward Contract Receivable—FC	332,400	
Forward Contract Payable—$		332,400
To record purchase of forward contract (300,000 × $1.108).		
May 31		
Forward Contract Receivable—FC	1,194	
Premium Expense	1,200	
Other Comprehensive Income.....		2,394
Total change in value of contract is $1,194 gain. [300,000 FC × ($1.112 – $1.108) = $1,200 gain. The NPV of $1,200 when n = 1 and i = 6%/12 is $1,194.] Total premium is $2,400 [300,000 FC × ($1.108 – $1.100)] allocated over 2 months.		

Problem 6-2, Continued

June 30			June 30		
Construction in Progress	200,000		Forward Contract Receivable—FC	2,406	
Cash		200,000	Premium Expense	1,200	
To record costs incurred.			Other Comprehensive Income		3,606
			Total change in value of contract is $3,600 gain. [300,000 FC × ($1.120 – $1.108)]. $3,600 gain less previously recognized gain of $1,194 = $2,406.		
Exchange Loss	2,000				
Accounts Payable		2,000			
To accrue exchange on FC payable [200,000 FC × ($1.11 – $1.12)].					
Accounts Payable	224,000		Forward Contract Payable—$	332,400	
Foreign Currency		224,000	Foreign Currency	336,000	
To record settlement of equipment payable (200,000 FC × $1.12).			Cash		332,400
			Forward Contract Receivable—FC		336,000
			To record settlement of forward contract (300,000 FC × $1.12).		
Construction in Progress	112,000				
Foreign Currency		112,000			
To record costs incurred (100,000 FC × $1.12) for generators.					

Problem 6-2, Concluded

(2) The gross profit on the project is as follows:

Sales revenue		$1,200,000
Cost of sales:		
May project costs	$300,000	
May 31 equipment purchase	112,000	
June project costs	200,000	
July project costs	250,000	
Reclassification of other comprehensive income	(6,000)	1,078,000
Gross profit		$ 122,000

PROBLEM 6-3

(1) The foreign currency transaction:

	March	April
Sales (200,000 euros × $1.180)	$236,000	$ —
Cost of goods sold	160,000	—
Gross profit	$ 76,000	$ —
Exchange gain (loss):		
200,000 euros × ($1.179 – $1.180)	(200)	
200,000 euros × ($1.175 – $1.179)		(800)
Net income effect	$ 75,800	$(800)

(2) The hedge on the foreign currency transaction:

	March	April
Gain (loss) on forward contract (see Schedule A)	$597	$603
Net income effect	$597	$ 603

(3) The foreign currency commitment:

	March	April
Gain (loss) on firm commitment (see Schedule B)	$(593)	$(896)
Net income effect	$(593)	$(896)

Problem 6-3, Continued

(4) The hedge on the foreign currency commitment:

	March	April
Gain (loss) on forward contract (see Schedule B)	$593	$ 896
Net income effect	$593	$ 896

Schedule A for Part (2)

	March 1	March 31	April 30
Number of FC	200,000	200,000	200,000
Forward rate remaining time—1 FC	$1.181	$1.178	$1.175
Fair value of original contract:			
Original forward rate		$236,200	$236,200
Current forward rate		235,600	235,000
Change—gain (loss) in forward rate		$ 600	$ 1,200
Present value of change:			
n = 1, i = 0.50%		$ 597	
n = 0, i = 0.50%			$ 1,200
Change in value from prior period:			
Current present value		$ 597	$ 1,200
Prior present value		—	597
(a) Change in present value		$ 597	$ 603

Problem 6-3, Concluded

Schedule B for Part (3 and 4)

	March 15	March 31	April 30
Number of FC	300,000	300,000	300,000
Forward rate remaining time—1 FC	$1.179	$1.177	$1.174
Fair value of original contract:			
Original forward rate		$353,700	$353,700
Current forward rate		353,100	352,200
Change—gain (loss) in forward rate		$ 600	$ 1,500
Present value of change:			
n = 2.5, i = 0.50%		$ 593	
n = 1.5, i = 0.50%			$ 1,489
Change in value from prior period:			
Current present value		$ 593	$ 1,489
Prior present value		—	593
(a) Change in present value		$ 593	$ 896

PROBLEM 6-4

June	1	Inventory—Reconditioned Equipment	158,400	
		Accounts Payable		158,400
		To record purchase of the equipment when 1 CA$ = $0.72.		
		Investment in Call Option	1,000	
		Cash		1,000
		To record purchase of option.		
		Accounts Receivable	216,000	
		Equipment Inventory		216,000
		To record sale of equipment when 1 CA$ = $0.72.		
		Forward Contract Receivable—$	218,700	
		Forward Contract Payable—CA$		218,700
		To record purchase to sell 300,000 CA$ at a forward rate of 1 CA$ = $0.729.		

Problem 6-4, Continued

June	15	Memo: committed to buy equipment		
		Forward Contract Receivable—CA$	292,400	
		Forward Contract Payable—$		292,400
		To record purchase to buy 400,000 CA$ at a forward rate of 1 CA$ = $0.731.		
	20	Inventory—Reconditioned Equipment	21,960	
		Cash		21,960
		To record the cost to refurbish the equipment when 1 CA$ = $0.732.		
		Accounts Receivable	226,920	
		Sales		226,920
		Cost of Goods Sold ($158,400 + $21,960)	180,360	
		Inventory—Reconditioned Equipment		180,360
		To record the sale of equipment when 1 CA$ = $0.732.		
	30	Foreign Currency	220,500	
		Accounts Receivable		216,000
		Exchange Gain		4,500
		To settle the accounts receivable when 1 CA$ = $0.735.		
		Loss on Contract	1,800	
		Forward Contract Payable—CA$		1,800
		To record change in value of the June 1 contract [300,000 CA$ × ($0.735 – $0.729)].		
		Forward Contract Payable—CA$	220,500	
		Cash	218,700	
		Foreign Currency		220,500
		Forward Contract Receivable—$		218,700
		To record the settlement of the June 1 contract.		
		Investment in Call Option ($3,200 – $1,000)	2,200	
		Gain on Option		2,200
		To record change in value of option acquired on June 1.		

Problem 6-4, Concluded

June 30	Loss on Firm Commitment	2,388	
	Firm Commitment		2,388
	To record the loss on the commitment (see Schedule A).		
	Forward Contract Receivable—CA$	2,388	
	Gain on Contract		2,388
	To record change in value of the June 15 contract (see Schedule A).		

Schedule A

	June 15	June 30
Number of FC	400,000	400,000
Forward rate remaining time—1 FC	$0.731	$0.737
Fair value of original contract:		
Original forward rate		$ 292,400
Current forward rate		294,800
Change—gain (loss) in forward rate		$ 2,400
Present value of change:		
n = 1, i = 0.50%		$ 2,388
Change in value from prior period:		
Current present value		$ 2,388
Prior present value		—
(a) Change in present value		$ 2,388

PROBLEM 6-5

(1)

	July	August	September
Bank loan:			
Interest expense:			
(400,000 FCA × 7.2% × 30/360 × $0.66)	$ (1,584)		
(400,000 FCA × 7.2% × 30/360 × $0.64)		$(1,536)	
Exchange gain (loss):			
[400,000 FCA × ($0.66 – $0.62)]	(16,000)		
[400,000 FCA × ($0.64 – $0.66)]		8,000	
[2,400 FCA of July interest × ($0.64 – $0.66)]		48	
Equipment purchase:			
Depreciation expense (400,000 FCA × $0.62/180 months)	(1,378)	(1,378)	$ (1,378)
Purchase of inventory (see Schedule A):			
Gain (loss) on forward contract	248	1,742	510
Gain (loss) on commitment	(248)	(1,742)	—
Exchange gain (loss) on payable (250,000 FCB × ($1.05 – $1.07))			(5,000)
Sale of inventory:			
Sales revenue			336,000
Cost of sales:			
Inventory cost (250,000 FCB × $1.05)			(262,500)
Adjustment for commitment loss			1,990
Totals	$(18,962)	$ 5,134	$ 69,622

Problem 6-5, Continued

Schedule A

Date	July 15	July 31	August 31	Sept. 30
Number of FCB	250,000	250,000	250,000	250,000
Forward rate remaining time—1 FCB	$1.060	$1.061	$1.068	$1.070
Fair value of forward contract:				
Original forward rate		$265,000	$265,000	$265,000
Current forward rate		265,250	267,000	267,500
Change—gain (loss) in forward rate		$ 250	$ 2,000	$ 2,500
Present value of change:				
n = 2, i = 0.50%		$ 248		
n = 1, i = 0.50%			$ 1,990	
n = 0, i = 0.50%				$ 2,500
Change in value from prior period:				
Current present value		$ 248	$ 1,990	$ 2,500
Prior present value		—	248	1,990
Change in present value		$ 248	$ 1,742	$ 510

(2)

July	1	Foreign Currency	248,000	
		Note Payable		248,000
		To record loan proceeds when 1 FCA = $0.62.		
		Manufacturing Equipment	248,000	
		Foreign Currency		248,000
		To record purchase of equipment.		
	15	Forward Contract Receivable—FC	265,000	
		Forward Contract Payable—$		265,000
		To record purchase of forward contract when the forward rate is 1 FCB = $1.06.		

Problem 6-5, Concluded

July	31	Interest Expense	1,584	
		Interest Payable		1,584
		To accrue interest on loan (400,000 FCA × 7.2% × 1/12 year × $0.66).		
		Depreciation Expense	1,378	
		Accumulated Depreciation		1,378
		To record depreciation (400,000 FCA × $0.62/ 180 months).		
		Exchange Loss	16,000	
		Note Payable		16,000
		To record change in dollar basis of note payable [400,000 FCA × ($0.66 – $0.62)].		
		Forward Contract Receivable—FC	248	
		Gain on Contract		248
		To record change in value of the contract (see Schedule A).		
		Loss on Firm Commitment	248	
		Firm Commitment		248
		To recognize loss on commitment.		

PROBLEM 6-6

	Assumption 1	Assumption 2
Option A:		
Transaction exchange gain (loss):		
[100,000 FC × ($1.289 – $1.224)]	$ (6,500)	
[100,000 FC × ($1.12 – $1.17)]		$ 5,000
Cost of sales:		
(100,000 FC × $1.224)	(122,400)	
(100,000 FC × $1.17)		(117,000)
Income effect	$(128,900)	$(112,000)

Problem 6-6, Concluded

Option B:		
Commitment period:		
Gain (loss) on hedge:		
(See Note A)	$ 1,980	
(See Note C)		$ 990
Commitment gain (loss)	(1,980)	
(990)		
Transaction gain (loss) on payable:		
[100,000 FC × ($1.289 – $1.224)]	(6,500)	
[100,000 FC × ($1.12 – $1.17)]		5,000
Gain (loss) on hedge of transaction:		
(See Note B)	5,920	
(See Note D)		(6,990)
Cost of sales:		
(100,000 FC × $1.224) less commitment loss of $1,980	(120,420)	
(100,000 FC × $1.17) less commitment loss of $990		(116,010)
Income effect	$(121,000)	$(118,000)

Option C:		
Transaction gain (loss) on payable	$ (6,500)	$ 5,000
Gain (loss) on hedge of transaction:		
[100,000 FC × ($1.289 – $1.230)]	5,900	
[100,000 FC × ($1.12 – $1.19)]		(7,000)
Cost of sales:		
(100,000 FC × $1.224)	(122,400)	
(100,000 FC × $1.17)		(117,000)
Income effect	$(123,000)	$(119,000)

Note A: Change in forward rates = 100,000 FC × ($1.230 – $1.210) = $2,000 gain. The present value of the gain above n = 2 and i = 6%/12 is $1,980.

Note B: Change in forward rates = 100,000 FC × ($1.289 – $1.210) = $7,900 gain. $7,900 gain less previously recognized gain of $1,980 = $5,920 gain.

Note C: Change in forward rates = 100,000 FC × ($1.19 – $1.18) = $1,000 gain. The present value of the gain where n = 2 and i = 6%/12 is $990.

Note D Change in forward rates = 100,000 FC × ($1.12 – $1.18) = $6,000 loss. $6,000 loss plus previously recognized gain of $990 = $6,990 loss.

PROBLEM 6-7

(1) The total impact on earnings is as follows:

Value of FC from sale (100,000 FC × $0.91 forward rate).....	$ 91,000
Cost of sale.....	(75,000)
Total impact on earnings.....	$ 16,000

(2)

	February 1	March 1	April 1	May 1
Amount of FC.....	100,000	100,000	100,000	100,000
Spot rate	$0.90	$0.87	$0.85	$0.81
Forward rate	$0.91	$0.87	$0.83	$0.81
Fair value of contract to sell:		$3,960 = [($0.91 – $0.87) × 100,000 FC = $4,000. NPV of $4,000 where n = 1 and i = 6%/12 is $3,960].	$7,960 = [($0.91 – $0.83) × 100,000 FC = $8,000. NPV of $8,000 where n = 1 and i = 6%/12 is $7,960].	$10,000 = [($0.91 – $0.81) × 100,000 FC = $10,000].
Original forward rate.....			$91,000	$91,000	$91,000
Current forward rate.....			87,000	83,000	81,000
Change—gain (loss) in forward rate.....			$ 4,000	$ 8,000	$10,000
Present value of change:					
n = 2, i = 0.50%.....			$ 3,960		
n = 1, i = 0.50%.....				$ 7,960	
n = 0; i = 0.50%.....					$10,000
Change in value from prior period:					
Current present value.....			$ 3,960	$ 7,960	$10,000
Prior present value			—	3,960	7,960
Change in present value			$ 3,960	$ 4,000	$ 2,040
Change in fair value from prior period – gain (loss).....		$3,960 = $3,960 – $0	$4,000 = $7,960 – $3,960	$2,040 = $10,000 – $7,960
Change in spot rates – gain (loss)		$3,000 = ($0.90 – $0.87) × 100,000 FC	$2,000 = ($0.87 – $0.85) × 100,000 FC	$4,000 = ($0.85 – $0.81) × 100,000 FC
Change in spot-forward difference (time value) – gain (loss)		$960 = $3,960 – $3,000	$2,000 = $4,000 – $2,000	$(1,960) = $2,040 – $4,000

Problem 6-7, Continued

Feb.	1	Memo entry to record forward contract.		
		Or—		
		Forward Contract Receivable—$	91,000	
		Forward Contract Payable—FC		91,000
Mar.	1	Loss on Commitment	3,960	
		Firm Commitment		3,960
		To record change in fair value of firm commitment.		
		Forward Contract Payable—FC	3,960	
		Gain on Contract		3,960
		To record change in value of the contract.		
Apr.	1	Loss on Commitment	4,000	
		Firm Commitment		4,000
		To record change in fair value of firm commitment.		
		Forward Contract Payable—FC	4,000	
		Gain on Contract		4,000
		To record change in value of the contract.		
		Accounts Receivable	85,000	
		Firm Commitment	7,960	
		Sales		92,960
		To record sale of inventory to foreign company.		
		Cost of Sales	75,000	
		Inventory		75,000
		To record cost of sales.		
May	1	Loss on Commitment	2,040	
		Firm Commitment		2,040
		To record change in fair value of firm commitment.		
		Forward Contract Payable—FC	2,040	
		Gain on Contract		2,040
		To record change in value of the contract.		
		Foreign Currency	81,000	
		Exchange Loss	4,000	
		Accounts Receivable		85,000
		To record payment from customer		

Problem 6-7, Concluded

May	1	Cash	91,000	
		Forward Contract Receivable—$		91,000
		To record dollars collected from broker.		
		Forward Contract Payable—FC	81,000	
		Foreign Currency		81,000
		To record settlement of forward contract.		
		Reconciliation of impact on earnings:		
		Loss on commitment	$ (7,960)	
		Gain on forward contract	10,000	
		Sales	92,960	
		Cost of sales	(45,000)	
		Exchange loss on receivable	(4,000)	
				$16,000

CHAPTER 7

UNDERSTANDING THE ISSUES

1. If major cash inflows and/or outflows are not denominated in the entity's domestic currency, this is a strong indicator that another currency is the functional currency. The company's financing, sales, and expenditure activities should be evaluated in order to identify the primary currency in which the entity operates. For example, if a French company secures most of its financing from a U.S. bank with the debt to be serviced with dollars, this suggests that the functional currency is the U.S. dollar.

2. Because the French company's functional currency is the euro, it is not exposed to risk associated with exchange rate changes between the euro and the U.S. dollar (the parent's currency). Changes in the exchange rates will not have a current or known economic effect on either the parent's or the French company's cash flows or equity. Therefore, the translation adjustment should not be included as a component of net income. Including the adjustment in net income would suggest that exchange rate changes have an economic effect on the constituent companies when in fact they do not.

3. Because the euro is the subsidiary's functional currency, its financial statements will be translated rather than remeasured. The translated balance of retained earnings consists of the following: a beginning balance represented by the translated balance at the end of the prior year plus net income translated at weighted-average exchange rates less dividends declared translated at the historical exchange rates existing at the date of declaration.

4. In order for there to be a remeasurement loss, the foreign currency (FC) would have to weaken against the dollar (a strengthening dollar). The remeasurement loss would be included in current-period earnings, and the U.S. parent would want to hedge against this loss in reporting earnings. The U.S. company could borrow foreign currency and designate the loan as a hedge of its net investment in the foreign subsidiary. As the foreign currency weakened, it would take fewer dollar equivalents to settle the FC denominated loan. This would result in an exchange gain that could offset the remeasurement loss. Given a weakening FC, an FC denominated loan receivable would not be an effective hedge of the net investment in the subsidiary.

5. If a foreign entity's functional currency is highly inflationary, there is an assumption that the currency has lost its utility as a measure of a store of value and lacks stability. Therefore, the currency would not serve as a useful functional currency. If the functional currency were translated, rather than remeasured, the results might be quite unusual and not very useful. The results will not represent reasonable dollar-equivalent measures of the accounts. In order to overcome these unusual results, two possible approaches have been proposed. The first approach would adjust the foreign entity's trial balance for inflationary changes over time and then translate the resulting balances. A second approach is to assume that the parent/investor (dollar) currency should serve as the foreign entity's functional currency. This latter approach has been adopted by the FASB and therefore requires that the foreign entity's statements be remeasured into the functional currency (dollars).

EXERCISES

EXERCISE 7-1

(1) Recomputation of Annual Translation Adjustment

Net assets owned by the investor at the beginning of period multiplied by the change in the exchange rates during the period [150,000 FC × ($1.10 – $1.20)]	$	(15,000)
Increase in net assets (excluding capital transactions) multiplied by the difference between the current rate and the average rate used to translate income [75,000 FC × ($1.10 – $1.13)]		(2,250)
Increase in net assets due to capital transactions (including investments by the domestic investor) multiplied by the difference between the current rate and the rate at the time of the capital transaction [60,000 FC × ($1.10 – $1.15)]		(3,000)
Translation adjustment (debit)	$	(20,250)

(2) The company's net investment in the foreign entity has produced a translation adjustment that is negative in nature due to a weakening FC. The loss in value of the net investment will reduce other comprehensive income (OCI). If an investment in FC (an asset) decreases in value, then an obligation to pay FC (a liability) would increase in value. Therefore, given a weakening FC, the parent company could hedge using an FC denominated liability or a forward contract to buy FC.

(3) A hedge of the foreign currency exposure of a net investment in a foreign operation may result in a gain or a loss. Assuming the hedge is designated as such, the gain or loss should be reported in the same way that the translation adjustment is reported to the extent that the hedge is effective. Therefore, the gain or loss traceable to hedge effectiveness will be reported as a component of other comprehensive income. Any gain or loss traceable to hedge ineffectiveness will be recognized in current earnings.

Exercise 7-2 begins on page 366

EXERCISE 7-2

		Translated Value Assuming $ Is Functional Currency		Translated Value Assuming FC Is Functional Currency	
	In FC	Rate	$ Amount	Rate	$ Amount
Income Statement Components:					
Sales revenue	10,000,000	FC	$1.06	$10,600,000	$1.06
$10,600,000					
Cost of sales	3,700,000	1.06	3,922,000	1.06	3,922,000
Gross profit	6,300,000	FC	$ 6,678,000		$
6,678,000					
Selling, general, and administrative	1,200,000	1.06	1,272,000	1.06	1,272,000
Depreciation:					
2,000,000 FC/10 years	200,000	1.00	200,000	1.06	212,000
1,000,000 FC/10 years × 1/2	50,000	1.05	52,500	1.06	53,000
Subtotal	4,850,000	FC	$ 5,153,500		$
5,141,000					
Remeasurement gain (loss)			305,000		
Net income	4,850,000	FC	$ 5,458,500		$
5,141,000					
Year-End Balance Sheet Components:					
Current assets (assume all cash)	4,100,000	FC	1.11 $ 4,551,000	1.11	$
4,551,000					
Net depreciable assets	2,750,000	(see Note A)	2,797,500	1.11	
3,052,500					
	6,850,000	FC	$ 7,348,500		$
7,603,500					
Initial contributed capital	3,000,000	FC	1.00 $ 3,000,000	1.00	$
3,000,000					
Dividend ($1,110,000/$1.11)	(1,000,000)	1.11	(1,110,000)	1.11	(1,110,000)
Net income excluding remeasurement	4,850,000		5,153,500		5,141,000
Subtotal	6,850,000	FC	$ 7,043,500		$
7,031,000					
Translation adjustment					572,500
Remeasurement gain (loss)			305,000		
	6,850,000	FC	$ 7,348,500		$
7,603,500					

Exercise 7-2, Concluded

	In FC	Translated Value Assuming $ Is Functional Currency Rate	$ Amount	Translated Value Assuming FC Is Functional Currency Rate	$ Amount
Cash Flow Components:					
Initial investment	3,000,000	$1.00	$ 3,000,000	$1.00	$ 3,000,000
Purchase of equipment at beginning	(2,000,000)	1.00	(2,000,000)	1.00	(2,000,000)
Purchase of equipment at midyear	(1,000,000)	1.05	(1,050,000)	1.05	(1,050,000)
Net income	4,850,000	see above	5,458,500	see above	5,141,000
Add back depreciation	250,000	see above	252,500	see above	265,000
Deduct remeasurement gain		see above	(305,000)		
Dividend payment	(1,000,000)	1.11	(1,110,000)	1.11	(1,110,000)
Subtotal	4,100,000		$ 4,246,000		$ 4,246,000
FC exchange gain (see Note B))			305,000		305,000
Net cash flow	4,100,000		$ 4,551,000		$ 4,551,000

Note A: Net depreciable assets:

Purchased at beginning of year (1,800,000 FC × $1.00)	$ 1,800,000
Purchased at midyear (950,000 FC × $1.05)	997,500
	$ 2,797,500

Note B: Effect of exchange rate changes on cash:

1,000,000 FC held and not spent on equipment during the first six months:	
Value at beginning of year (1,000,000 FC × $1.00)	$ 1,000,000
Value at end of first six months (1,000,000 FC × $1.05)	1,050,000
Exchange gain on cash	$ 50,000
5,100,000 FC from operations (6,300,000 sales – 1,200,000 SGA*) held since average point:	
Value at midyear (5,100,000 FC × $1.06)	$ 5,406,000
Value at end of year (5,100,000 FC × $1.11)	5,661,000
Exchange gain on cash	$ 255,000
Total exchange gain on cash	$ 305,000

*SGA for selling, general, and administrative.

EXERCISE 7-3

June	30	Investment in Fabinet	3,120,000	
		Cash		3,120,000
		To record purchase of 40% interest in Fabinet.		
		Cash	83,160	
		Investment to Fabinet		83,160
		To record receipt of dividend (126,000 FC Times $0.66).		
Dec.	31	Investment in Fabinet	565,712	
		Subsidiary Income		210,560
		Translation Adjustment		355,152
		To record share of net income adjusted for the amortization of excess and share of translation (see Schedules A and B).		

Schedule A—Calculation of Investor's Share of Adjusted Equity Income

Price paid ($3,120,000/$0.60)		5,200,000 FC
Equity purchased	10,500,000 FC	
40% Interest acquired	× 40%	4,200,000
Excess cost		1,000,000 FC
Allocation of excess cost:		
Equipment ($240,000/$0.60)		400,000 FC
Goodwill		600,000
		1,000,000 FC
Subsidiary net income (1,260,000 FC × $0.64)		$ 806,400
Investor's interest		× 40%
Investor's interest in net income		$ 322,560
Depreciation of excess related to equipment:		
$240,000/10 years × 1/2 year		(12,000)
Impairment loss on goodwill		(100,000)
Investor's adjusted income		$ 210,560

Schedule B—Recomputation of Annual Translation Adjustment

Net assets owned by the investee at the beginning of period multiplied by the change in the exchange rates during the period [10,500,000 FC × ($0.68 – $0.60)]	$840,000
Increase in net assets (excluding capital transactions) multiplied by the difference between the current rate and the average rate used to translate income [1,260,000 FC × ($0.68 – $0.64)]	50,400
Increase/decrease in net assets due to capital transactions (including investments by the domestic investor) multiplied by the difference between the current rate and the rate at the time of the capital transaction [126,000 FC × ($0.68 – $0.66)]	(2,520)
Translation adjustment	$887,880
Investor's interest	× 40%
Investor's interest in translation adjustment	$355,152

EXERCISE 7-4

Analysis of "Investment in Foreign Entity" Account

	Balance in U.S. Dollars
Initial investment	$600,000
Share of investee net income (30% of 140,000 FC × $2.24)	94,080
Share of investee transaction adjustment ($13,000 × 30%)	3,900
Amortization of cost over book value related to depreciable assets (Note A)	(2,851)
Balance in investment account	$695,129

Note A—Cost of investment ($600,000 ÷ $2.20)	272,727	FC
Book value of investment (800,000 FC × 30%)	240,000	
Excess of cost over book value	32,727	FC

32,727 FC Excess × 80% depreciable asset = 26,182 FC.
26,182 FC ÷ 12 years × $2.24 equals amortization of $4,887 times 7/12 of a year or $2,851.

EXERCISE 7-5

Translation of Forecasted December 31, 20X4, Trial Balance

Account	Debit (Credit) Balance in FC	Rate	Debit (Credit) Balance In $
Cash	40,000	FC	$1.20 $ 48,000
Accounts Receivable	220,000	1.20	264,000
Inventory	320,000	1.20	384,000
Equipment (net of depreciation)	825,000	1.20	990,000
Accounts Payable	(360,000)	1.20	(432,000)
6% Note Payable	(400,000)	1.20	(480,000)
Accrued Interest Payable	(4,000)	1.20	(4,800)
Common Stock	(200,000)	1.45	(290,000)
Contributed Capital in Excess of Par Value	(200,000)	1.45	(290,000)
Beginning Retained Earnings	(140,000)		(200,000)
Sales	(600,000)	1.28	(768,000)
Cost of Sales	366,000	1.28	468,480
Selling Expenses	55,000	1.28	70,400
Administrative Expenses	48,000	1.28	61,440
Interest Expense	30,000	1.28	38,400
Subtotal			$(140,080)
Cumulative Translation Adjustment to Balance			140,080
Total	0 FC		$ 0

Exercise 7-5, Concluded

20X4 Change in the Translation Adjustment

Cumulative translation adjustment as of December 31, 20X4	$140,080
Cumulative translation adjustment as of December 31, 20X3	120,000
20X4 Increase in cumulative translation adjustment	$ 20,080

Calculation of necessary hedge:

20X4 Increase in cumulative translation adjustment		$20,080
Change in exchange rates:		
September 30, 20X4, exchange rate	$1.24	
December 31, 20X4, exchange rate	1.20	÷ $0.04
Amount of loan necessary to generate a $106,080 exchange gain given the anticipated change in exchange rates:		
$20,080/$0.04		502,000 FC

Proof: If you borrowed (versus loaned) 502,000 FC, the value at various times would be as follows:

At September 30, 20X4 (502,000 FC × $1.24)	$622,480
At December 31, 20X4 (502,000 FC × $1.20)	602,400
Exchange gain on loan payable	$ 20,080

EXERCISE 7-6

Case A:

Remeasurement of Ending Inventory

	Balance in Functional Currency	Exchange Rate ($/FC)	Balance in Dollars
October 1, 20X7	150,000 FC	1.76	$264,000
December 15, 20X7	30,000	1.72	51,600
Historical cost	180,000 FC		$315,600
Market value	176,000 FC	1.82	$320,320

Because the remeasurement into the functional currency results in the historical cost having the least value, this amount is presented in the financial statements.

Case B:

Inventory—December 31, 20X7 (60% × 380,000 FC)	228,000 FC
Current exchange rate	× $2.10
Translated value	$ 478,800
Intercompany profit, 60% × [(380,000 FC × $2.00) – $500,000]	(156,000)
Ending inventory after eliminating intercompany profit	$ 322,800

Exercise 7-6, Concluded

Case C:

Depreciation expense:	Balance in FCA*	Exchange Rate	Balance in FCB	Exchange Rate	Balance in Dollars
January 1, 20X6, acquisition....	38,000	FC	2.10	79,800FC	$1.05 $ 83,790
March 1, 20X6, acquisition.....	59,167		1.98	117,151	1.05 123,008
July 1, 20X6, acquisition	10,800		1.92	20,736	1.05 21,773
December 1, 20X6, acquisition	250	2.01	503	1.05	528
	108,217	FC		218,190FC	
	$229,099				

*The 20X6 depreciation expenses in FC are calculated as follows:

380,000 ÷ 10 × 12/12 = 38,000
710,000 ÷ 10 × 10/12 = 59,167
216,000 ÷ 10 × 1/2 = 10,800
30,000 ÷ 10 × 1/12 = 250

EXERCISE 7-7

(1) Common stock:

Stock issuance, March 1, 20X5 (1,400,000 × $1.20)	$1,680,000	
Stock issuance, October 1, 20X6 (1,500,000 × $1.32).....	1,980,000	
		$3,660,000

Paid-in capital in excess of par:

Stock issuance, March 1, 20X5 (600,000 × $1.20)	$ 720,000	
Stock issuance, October 1, 20X6 (1,500,000 × $1.32).....	1,980,000	
		2,700,000

Retained earnings:

March 1, 20X5, to December 31, 20X5		
Net income (200,000 × $1.25)	$ 250,000	
20X6 Dividend (30,000 × $1.27)	(38,100)	
20X6 Net income (450,000 × $1.30).....	585,000	
20X7 Dividend (90,000 × $1.25)	(112,500)	
20X7 Net income (550,000 × $1.22).....	671,000	1,355,400
Treasury stock (300,000 × $1.28).....		(384,000)
Cumulative translation adjustment (Note A).....		(337,600)
Total stockholders' equity		$6,993,800

Note A—The total stockholders' equity in FC is 5,780,000; therefore, the net assets are also 5,780,000 FC. These net assets are translated at the current rate as of year-end 20X7 and have a dollar equivalency of $6,993,800 (5,780,000 × $1.21). The cumulative adjustment is needed to balance the translated value of equity to the translated value of net assets.

Exercise 7-7, Concluded

(2) Net assets owned by the investor at the beginning of period multiplied by the change in the exchange rates during the period [5,620,000 FC × ($1.21 – $1.32)]	$(618,200)
Increase in net assets (excluding capital transactions) multiplied by the difference between the current rate and the average rate used to translate income [550,000 FC × ($1.21 – $1.22)]	(5,500)
Decrease in net assets due to capital transactions (including investments by the domestic investor) multiplied by the difference between the current rate and the rate at the time of the capital transaction:	
Treasury stock transaction [300,000 FC × ($1.21 – $1.28)]	21,000
Dividend [90,000 FC × ($1.21 – $1.25)]	3,600
Translation adjustment (debit)	$(599,100)

PROBLEMS

PROBLEM 7-1

(1)	Short-Term Investments	400,000	
	OCI—Unrealized Holding Gain—AFS		400,000
	Research and Development Expense	980,000	
	Capitalized Research and Development		980,000
	Depreciable Assets—Lease	27,215	
	Obligation Under Capital Lease		27,215
	Obligation Under Capital Lease	8,000	
	Rent Expense		8,000
	Interest Expense (19,215 FC × 12%)	2,306	
	Interest Payable		2,306
	Depreciation Expense (27,215 FC ÷ 5 years)	5,443	
	Accumulated Depreciation—Leased Assets		5,443

Problem 7-1, Continued

(2)

Richter Corporation and Subsidiary Morgan Company
Worksheet for Consolidated Financial Statements
For Year Ended December 21, 20X9

Percentage interest acquired in subsidiary: 80%

	Richter Trial Balance (in dollars)	Morgan **Adjusted** Trial Balance (in FC)	Exchange Rate	Morgan Trial Balance (in dollars)	Eliminations and Adjustments Dr.	Eliminations and Adjustments Cr.
Cash	$ 4,630,000	3,850,000FC		$0.89	$ 3,426,500	
Short-Term Investments	1,250,000	1,500,000		0.89	1,335,000	
Accounts Receivable	3,790,000	4,620,000		0.89	4,111,800	
Inventory	4,800,000	2,950,000		Note A	2,508,500	
Investment in Morgan	6,930,000				(CV) $ 6,696,000	(EL) $11,932,000
						(D) 1,694,000
Depreciable Assets	27,400,000	17,700,000		Note B	13,979,000	
Accumulated Depreciation	(12,120,000)	(7,250,000)		Note B	(5,600,000)	
Depreciable Assets—Leased	4,540,000	27,215		0.82	22,316	
Accumulated Depreciation—Leased Assets	(1,900,000)	(5,443)		0.82	(4,463)	
Additional Depreciable Assets					(D) 1,694,000	(A) 169,400
Accounts Payable	(2,860,000)	(1,200,000)		0.89	(1,068,000)	
Interest Payable	(150,000)	(2,306)		0.89	(2,052)	
Obligation Under Capital Lease	(3,170,000)	(19,215)		0.89	(17,101)	
Common Stock—Parent	(10,000,000)					
Common Stock—Subsidiary		(3,000,000)		0.77	(2,310,000) (EL)	1,848,000
Retained Earnings—Parent	(18,460,000)					(CV) 6,696,000
					(A) 84,700	

Retained Earnings—Subsidiary	.....	(15,656,000)		Note C	(12,605,000)	(EL)	.. 10,084,000
Sales	(25,000,000)	(18,000,000)		0.88	(15,840,000)		.....
Cost of Goods Sold	16,500,000	11,600,000		Note D	9,508,000		.....
Depreciation Expense	2,875,000	1,555,443		Note B	1,215,463		.....
Interest Expense	150,000	2,306		0.88	2,029		.....
R&D Expense	740,000	980,000		0.88	862,400		.....
Other Expenses	955,000	748,000		0.88	658,240		.....
Depreciation of Excess	.....	.....	.....	.....	(A) 84,700		.....
OCI—Unrealized Holding Gain	(900,000)	(400,000)		0.89	(356,000)		.....
Remeasurement Gain/Loss	.....	.....	.....	173,368	.....		.....
Total	$ 0	0	FC	$ 0	$20,491,400		
$20,491,400							

Problem 7-1, Continued

Note A—Ending inventory consists of:

Inventory acquired on August 1, 20X9 (950,000 FC × $0.83)	$	788,500
Inventory acquired on November 15, 20X9 (2,000,000 FC × $0.86)		1,720,000
Total	$	2,508,500

Note B—Depreciable assets consist of the following:

Assets acquired prior to January 1, 20X8 (12,700,000 FC × $0.77)	$	9,779,000
Assets acquired on July 1, 20X9 (5,000,000 FC × $0.84)		4,200,000
Total	$	13,979,000

Accumulated depreciation consists of:

Assets acquired on July 1, 20X9		
[(5,000,000 FC ÷ 10 years × ½ year) × $0.84]	$	210,000
Assets acquired prior to January 1, 20X8		
[(7,250,000 FC – 250,000 FC) × $0.77)		5,390,000
Total	$	5,600,000

Depreciation expense consists of:

Assets acquired on July 1, 20X9		
[(5,000,000 FC ÷ 10 years × ½) × $0.84]	$	210,000
Leased assets acquired on January 1, 20X9		
(5,443 FC × $0.82)		4,463
Assets acquired prior to January 1, 20X8		
[(1,550,000 FC – 250,000 FC) × $0.77]		1,001,000
Total	$	1,215,463

Note C—The translated balance of retained earnings is as follows:

Balance on January 1, 20X8 (5,500,000 FC × $0.77)	$	4,235,000
20X8 Income		8,370,000
Total	$	12,605,000

Note D—Cost of goods sold consists of the following:

Inventory purchases in fourth quarter of 20X8 (2,400,000 FC × $0.78)	$	1,872,000
Inventory purchases in the first six months of 20X9		
(9,150,000 FC × $0.83)		7,594,500
Inventory purchased on August 1, 20X9 (50,000 FC × $0.83)		41,500
Total	$	9,508,000

Problem 7-1, Concluded

Eliminations and Adjustments:

(CV) Adjust the investment account to its January 1, 20X9, balance:

Retained earnings, January 1, 20X9		$12,605,000
Retained earnings, January 1, 20X8 (5,500,000 FC × $0.77)		4,235,000
Difference	$	8,370,000
Parent's interest	×	80%
Adjustment	$	6,696,000

(EL) Eliminate the subsidiary's January 1, 20X9, equity balances against the investment account.

(D) Distribute the excess of cost over book value.

	Cost to acquire subsidiary	9,000,000
FC		
	Book value of subsidiary (8,500,000 FC × 80%)	6,800,000
	Additional depreciable assets	2,200,000
FC		
	Excess of cost over book value in dollars at January 1, 20X8 (2,200,000 FC × $0.77)	$1,694,000

(A) Record appropriate additional depreciation.

	Annual depreciation of excess (2,200,000 FC ÷ 20)	110,000
FC		
	Accumulated depreciation at December 31, 20X9, in dollars (110,000 FC × 2 years × $0.77)	$169,400
	Depreciation expense in dollars:	
	20X8 (110,000 FC × $0.77)	$84,700
	20X9 (110,000 FC × $0.77)	84,700

PROBLEM 7-2

Keltner Enterprises and Subsidiary Jacklandia
Worksheet for Consolidated Financial Statements
For Year Ended December 31, 20X8

Percentage interest acquired in subsidiary: 80%

	Keltner Trial Balance (in dollars)	Jacklandia Trial Balance (in FC)	Exchange Rate	Jacklandia Trial Balance (in dollars)	Eliminations and Adjustments Dr.		Eliminations and Adjustments Cr.	Consolidated Income Statement	Noncontrolling Interest	Controlling Balance Earnings	Consolidated Balance Sheet
Working Capital	$ 32,120,800			9,550,000	$1.29	$12,319,500					$
Due from Jacklandia	800,000						(IA) $	800,000			
Investment in Jacklandia	14,221,200						(CV)		1,320,800		
						(EL)	10,660,400				
						(D/A)	2,240,000				
Land	5,120,000			1,000,000	1.29	1,290,000					
Depreciable Assets	54,000,000			6,000,000	1.29	7,740,000					
Accumulated Depreciation	(27,000,000)			(2,000,000)	1.29		(2,580,000)				
Patents					(D/A)	$ 2,064,000					2,064
Accumulated Amortization							(D/A) 619,200				(619,
Other Assets	5,978,800			1,500,000	1.29	1,935,000					
Due to Keltner			(620,155)	1.29	(800,000)	(IA)	800,000				
Other Long-Term Debt	(31,320,800)			(4,679,845)	1.29		(6,037,000)				
Common Stock—Parent	(30,000,000)										
Common Stock—Subsidiary			(5,000,000)	1.40	(7,000,000)	(EL)	5,600,000			$(1,400,000)	
Paid-In Capital in Excess of Par—Parent	(6,000,000)										
Paid-In Capital in Excess of Par—Subsidiary			(1,000,000)	1.40	(1,400,000)	(EL)	1,120,000			(280,000)	
Retained Earnings—Parent	(15,000,000)					(D/A)	443,200				$(14,556,800)
Retained Earnings—Subsidiary			(3,450,000)	Note A	(4,925,500)	(EL)	3,940,400			(985,100)	
20X8 Net Income	(2,920,000)			(1,300,000)	1.27		(1,651,000)	(CV)	1,320,800		$(3,047,000)
					(D/A)	203,200					
Cumulative Translation Adjustment—Jacklandia				1,109,000			(CT)	887,200		221,800	
Cumulative Translation Adjustment—Keltner					(CT)	887,200					1,036
					(D/A)	148,800					
Total	$ 0	0		$ 0		$16,527,600		$16,527,600			
Combined Net Income								$(3,047,000)			
To Noncontrolling Interest								$ 330,200		(330,200)	
Balance to Controlling Interest								$ 2,716,800			(2,716,800)
Total Noncontrolling Interest									$(2,773,500)		(2,77
Retained Earnings—Controlling Interest, December 31, 20X8										$(17,273,600)	(17,2
Totals											$ 0

Problem 7-2, Concluded

Note A—Translation of Retained Earnings:

January 1, 20X6, beginning balance: 1,000,000 FC × $1.40	$ 1,400,000
20X6 income: 1,400,000 FC × $1.42	1,988,000
20X7 income: 2,250,000 FC × $1.35	3,037,500
20X8 dividends: (1,200,000) FC × $1.25	(1,500,000)
Translated value of retained earnings	$ 4,925,500

Eliminations and Adjustments:

(CV) Eliminate the entry in the subsidiary income account against the investment in Jacklandia account ($1,651,000 × 80%).

(EL) Eliminate 80% of the subsidiary's beginning-of-year equity balances against the balance in the investment account.

(D/A) Distribute the excess of cost over book value and record appropriate amortization.

	Beginning or Average	End of Period	Difference
Excess at beginning of year	$2,240,000	$2,064,000	$176,000
Less accumulated amortization at beginning of year	(443,200)	(412,800)	(30,400)
Less current amortization expense	(203,200)	(206,400)	3,200
Net balance	$1,593,600	$1,444,800	$148,800

(IA) Eliminate intercompany trade balances.

(CT) Distribute the cumulative translation adjustment between controlling and minority interests.

PROBLEM 7-3

Sorenson Company
Trial Balance Translation
December 31, 20X8

Account	Balance in FC	Relevant Exchange Rate	Balance in Dollars
Cash	2,840,000	FC	$1.31 $ 3,720,400
Accounts Receivable	3,990,000	1.31	5,226,900
Inventory	5,800,000	1.31	7,598,000
Fixed Assets	15,000,000	1.31	19,650,000
Accumulated Depreciation	(6,800,000)	1.31	(8,908,000)
Accounts Payable	(1,580,000)	1.31	(2,069,800)
Long-Term Debt	(5,000,000)	1.31	(6,550,000)
Common Stock	(3,000,000)	1.20	(3,600,000)
Paid-In Capital in Excess of Par	(2,000,000)	1.20	(2,400,000)
Retained Earnings, January 1, 20X8	(7,950,000)	Note A	(9,880,000)
Sales	(10,000,000)	1.33	(13,300,000)
Cost of Goods Sold	7,500,000	1.33	9,975,000
Operating Expenses	1,200,000	1.33	1,596,000
Cumulative Translation Adjustment			(1,058,500)
Total	0	FC	$ 0

Note A—The translated balance of Retained Earnings is as follows:

Balance on January 1, 20X6 (4,200,000 FC × $1.20)	$5,040,000
20X6 Income (1,750,000 FC × $1.28)	2,240,000
20X7 Income (2,000,000 FC × $1.30)	2,600,000
Total	$9,880,000

Problem 7-3, Continued

Pueblo Corporation and Sorenson Company
Worksheet for Consolidated Financial Statements (in dollars)
For Year Ended December 31, 20X8

	Trial Balance		Eliminations and Adjustments				Consolidated Income Statement	Consolidated Balance Sheet
	Pueblo	Sorenson	Dr.		Cr.			
Cash	4,050,000	7,770,400	3,720,400					
Accounts Receivable	5,270,000	10,496,900	5,226,900					
Inventory	5,540,000	13,138,000	7,598,000					
Investment in Sorenson	20,969,000				(CV)		1,729,000	
				(EL)		15,880,000		
				(D)		3,360,000		
Fixed Assets	21,000,000	41,305,000	19,650,000	(D)	655,000			
Accumulated Depreciation	(12,560,000)	(21,664,500)	(8,908,000)			(A)	196,500	
Additional Equipment		2,561,050	(D)	3,013,000	(A)		451,950	
Accounts Payable	(3,450,000)	(5,519,800)	(2,069,800)					
Long-Term Debt	(10,000,000)	(16,550,000)	(6,550,000)					
Common Stock—Parent	(4,000,000)	(4,000,000)						
Common Stock—Subsidiary		(3,600,000)	(EL)	3,600,000				
Paid-In Capital in Excess of Par—Parent	(6,500,000)	(6,500,000)						
Paid-In Capital in Excess of Par—Subsidiary		(2,400,000)	(EL)	2,400,000				
Retained Earnings, January 1, 20X8—Parent	(12,180,000)	(11,754,300)	(A)	425,700				
Retained Earnings, January 1, 20X8—Subsidiary		(9,880,000)	(EL)	9,880,000				
Sales	(26,000,000)	(13,300,000)						(39,300,000)
Cost of Goods Sold	16,380,000		9,975,000					26,355,000

Operating Expenses	3,210,000		1,596,000	(A)	219,450				5,025,450
Subsidiary Income	(1,729,000)			(CV)	1,729,000				
Cumulative Translation Adjustment		(1,058,500)		(A)	3,300	(D)	308,000		(1,363,200)
Total	0	0			21,925,450		21,925,450		
Combined Net Income								(7,919,550)	(7,919,550)
Totals									0

Problem 7-3, Concluded

Eliminations and Adjustments:

(CV) Eliminate the subsidiary income account ($1,729,000) against the investment account.

(EL) Eliminate the subsidiary's January 1, 20X8, equity balances against the investment account.

(D) Distribute the excess of cost over book value.

Cost to acquire subsidiary	12,000,000
FC	
Book value of subsidiary	9,200,000
Excess of cost over book value	2,800,000
FC	
Less: Adjustment to equipment	500,000
Additional equipment	2,300,000
FC	

Excess of cost over book value in dollars at:	
January 1, 20X6 (2,800,000 FC × $1.20)	$3,360,000
December 31, 20X8:	
Equipment (500,000 FC × $1.31)	655,000
Additional equipment (2,300,000 FC × $1.31)	3,013,000
Cumulative translation adjustment	$ 308,000

(A) Record appropriate depreciation of excess.

Annual depreciation of excess:	
Equipment (500,000 FC ÷ 10)	50,000
FC	
Goodwill (2,300,000 FC ÷ 20)	115,000
Total	165,000
FC	

Accumulated depreciation at December 31, 20X8, in dollars:	
Equipment (50,000 × 3 years × $1.31)	$196,500
Additional equipment (115,000 × 3 years × $1.31)	$451,950
Current-year depreciation at December 31, 20X8, in dollars (165,000 FC × $1.33)	$219,450
Prior years' depreciation expense in dollars:	
20X6 (165,000 FC × $1.28)	$211,200
20X7 (165,000 FC × $1.30)	214,500
Total	$425,700
Cumulative translation adjustment	$3,300

PROBLEM 7-4

Stone Corporation
Trial Balance Translation
December 31, 20X8

Account	Balance in FC	Relevant Exchange Rate	Balance in Dollars
Cash	2,253,000FC	$1.42	$ 3,199,260
Net Accounts Receivable	5,580,000	1.42	7,923,600
Inventory (Note A)	6,200,000	1.42	8,804,000
Depreciable Assets (Notes B & C)	23,650,000	1.42	33,583,000
Accumulated Depreciation (Note B)	(7,265,000)	1.42	(10,316,300)
Accounts Payable	(3,290,000)	1.42	(4,671,800)
Unearned Revenue	(2,437,000)	1.42	(3,460,540)
Bonds Payable	(10,200,000)	1.42	(14,484,000)
Accrued Expenses	(2,180,000)	1.42	(3,095,600)
Common Stock	(5,000,000)	1.10	(5,500,000)
Paid-In Capital in Excess of Par	(1,600,000)	1.10	(1,760,000)
Retained Earnings, January 1, 20X8	(4,550,000)	Note D	(5,339,500)
Sales	(24,000,000)	1.40	(33,600,000)
Cost of Goods Sold (Note A)	18,010,000	1.40	25,214,000
Operating Expenses (Note B)	4,829,000	1.40	6,760,600
Cumulative Translation Adjustment			(3,256,720)
Total	0 FC		$ 0

Note A—The journal entry to adjust Inventory and Cost of Goods Sold to U.S. GAAP is as follows:

Gain on the Appreciation of Inventory	650,000	
Inventory		200,000
Cost of Goods Sold		450,000

Inventory = 6,400,000 – 200,000 = 6,200,000
Cost of Goods Sold = 18,460,000 – 450,000 = 18,010,000
Gain on the Appreciation of Inventory = 650,000 – 650,000 = 0

Note B—The journal entries to adjust Property, Plant, and Equipment and related accounts to U.S. GAAP are as follows:

Accumulated Depreciation	180,000	
Retained Earnings	720,000	
Depreciable Assets		900,000
Gain on Appreciation of Equipment.....	200,000	
Accumulated Depreciation	55,000	
Depreciable Assets		200,000
Operating Expenses.....		55,000

Problem 7-4, Concluded

Note C—The journal entry to adjust Research and Development to U.S. GAAP is as follows:

Accumulated Depreciation	700,000	
Retained Earnings	600,000	
Depreciable Assets		1,000,000
Operating Expenses.....		300,000

Depreciable Assets = 25,750,000 – 900,000 – 200,000 – 1,000,000 = 23,650,000
Accumulated Depreciation = 8,200,000 – 180,000 – 55,000 – 700,000 = 7,265,000
Operating Expenses = 5,184,000 – 55,000 – 300,000 = 4,829,000
Gain on the Appreciation of Equipment = 200,000 – 200,000 = 0
Retained Earnings = 5,870,000 – 720,000 – 600,000 = 4,550,000

Note D—The translated balance of Retained Earnings is as follows:

Balance on January 1, 20X5 (2,000,000 FC × $1.10)	$2,200,000
20X5 Income (1,000,000 FC × $1.15).....	1,150,000
20X6 Income (1,200,000 FC × $1.27).....	1,524,000
20X7 Income (350,000 FC × $1.33).....	465,500
Total.....	$5,339,500

PROBLEM 7-5

(1)

Foreign Subsidiary
Trial Balance
For the First Year

Account	Dr. (Cr.) Balance in FCA	If FCA Is the Functional Currency: Exchange Rate	Balance in Dollars	If $ Is the Functional Currency: Exchange Rate	Balance in Dollars
Accounts Receivable	210,000	FCA	$1.040 $ 218,400	218,400	$1.040 $ 218,400
Inventory	140,000	1.040	145,600	Note C	142,800
Other Current Assets	50,000	1.040	52,000	1.040	52,000
Land	1,600,000	1.040	1,664,000	1.000	1,600,000
Building	2,200,000	1.040	2,288,000	1.000	2,200,000
Accumulated Depreciation (see Note A)	(55,000)	1.040	(57,200)	1.000	(55,000)
Furnishings	720,000	1.040	748,800	1.000	720,000
Accumulated Depreciation (see Note A)	(60,000)	1.040	(62,400)	1.000	(60,000)
Accounts Payable	(130,000)	1.040	(135,200)	1.040	(135,200)
Long-Term Debt	(3,292,344)	1.040	(3,424,038)	1.000	(3,292,344)
Contributed Capital	(1,000,000)	1.000	(1,000,000)	1.000	(1,000,000)
Sales Revenue	(2,200,000)	1.025	(2,255,000)	1.025	(2,255,000)
Cost of Sales	1,320,000	1.025	1,353,000	Note C	1,368,300
Other Expenses	158,068	1.025	162,020	1.025	162,020
Depreciation (see Note A)	115,000	1.025	117,875	1.000	115,000
Interest (see Note B)	224,276	1.025	229,883	1.025	229,883
Cumulative Translation Adjustment			(25,470)		
Remeasurement Gain/Loss					(10,859)
Totals	0 FCA		$ 0		$ 0

Note A—Accumulated depreciation:

	In FCA	
Building (2,200,000 FCA ÷ 40 years)	55,000	FCA
Furnishings (720,000 FCA ÷ 12 years)	60,000	
	115,000	FCA

Problem 7-5, Concluded

Note B: Interest expense:

			In FCA	
Total payments (4 × 232,983 FCA)			931,932	FCA
Change in principal balance:				
Beginning	4,000,000	FCA		
Ending	3,292,344		707,656	
Interest expense			224,276	FCA

Note C: Cost of sales and ending inventory:

	In FCA		Exchange Rate	In $
1st Quarter purchase	365,000	FCA	$1.020	$ 372,300
2nd Quarter purchase	365,000		1.030	375,950
3rd Quarter purchase	365,000		1.050	383,250
4th Quarter purchase	365,000		1.040	379,600
Total available	1,460,000	FCA		$1,511,100
Ending inventory	140,000		1.020	142,800
Cost of sales	1,320,000	FCA		$1,368,300

(2) Both the translation adjustment and the remeasurement gain/loss have a positive effect on the parent's equity. Therefore, the parent would not have wanted to hedge its investment.

(3) Value of 600,000 FCA loan payable at:

End of year (600,000 FCA × $1.04)	$624,000
End of first quarter (600,000 FCA × $1.02)	612,000
Exchange loss	$ 12,000

None of the hedge would have been considered ineffective against the translation adjustment. However, $1,141 ($12,000 versus $10,859) would be considered ineffective relative to the remeasurement gain.

PROBLEM 7-6

(1)

Quatro Corporation
Trial Balance Remeasurement
December 31, 20X7

Account	Balance in Books of Record (BR) Currency	Relevant Exchange Rate ($/FC)	Balance in Functional Currency ($)
Cash and Receivables	2,200,000	$0.54	$ 1,188,000
Inventory	3,700,000	Note A	2,050,000
Machinery and Equipment	22,950,000	Sch. A	13,880,000
Accumulated Depreciation—Machinery and Equipment	(5,922,500)	Sch. A	(3,567,250)
Tooling	6,000,000	Sch. B	3,632,000
Accumulated Depreciation—Tooling	(1,520,000)	Sch. B	(916,000)
Licensing Agreements	500,000	0.60	300,000
Accumulated Amortization—Licensing Agreements	(325,000)	0.60	(195,000)
Cost of Sales (excluding depreciation)	12,700,000	Note B	7,393,000
Depreciation Expense	2,895,000	Sch. A & B	1,751,200
Amortization Expense	50,000	0.60	30,000
Other Expenses	3,000,000	0.57	1,710,000
Total	46,227,500		$27,255,950
Accounts and Notes Payable	2,000,000	0.54	$ 1,080,000
Due to Spencer	11,000,000	0.54	5,940,000
Common Stock	8,000,000	0.60	4,800,000
Paid-In Capital in Excess of Par Value	1,000,000	0.60	600,000
Retained Earnings	3,700,000	Note C	2,258,000
Sales Revenue	20,527,500	0.57	11,700,675
Remeasurement Gain (to balance)			877,275
Total	46,227,500		$27,255,950

Note A—The historical cost of the ending inventory must be remeasured into the functional currency.

Historical cost:	
(2,200,000 FC × $0.55)	$1,210,000
(1,500,000 FC × $0.56)	840,000
	$2,050,000

Problem 7-6, Continued

Note B—Cost of Sales is remeasured as follows:

	Balance in BR	Exchange Rate ($/FC)	Functional Currency ($)
Third quarter, 20X6 acquisition	800,000	$0.61	$ 488,000
Fourth quarter, 20X6 acquisition	1,200,000	0.62	744,000
First quarter, 20X7 acquisition	3,200,000	0.60	1,920,000
Second quarter, 20X7 acquisition	4,100,000	0.57	2,337,000
Third quarter, 20X7 acquisition	3,400,000	0.56	1,904,000
Total	12,700,000		$7,393,000

Note C—Retained Earnings is remeasured as follows:

	Balance in BR	Exchange Rate ($/FC)	Functional Currency ($)
Balance, July 1, 20X6	3,000,000	$0.60	$1,800,000
Income from July 1 to December 31, 20X6	1,300,000	0.62	806,000
Dividends declared August 1, 20X6	(300,000)	0.61	(183,000)
Dividends declared August 1, 20X7	(300,000)	0.55	(165,000)
Total	3,700,000		$2,258,000

Schedule A
Remeasurement of Machinery and Equipment
Depreciation Expense and Accumulated Depreciation

	Balance in Books of Record (BR) Currency	Relevant Exchange Rate ($/FC)	Balance in Functional Currency ($)
Depreciable machinery and equipment:			
July 1, 20X6, acquisition	17,450,000	$0.60*	$10,470,000
October 1, 20X6, acquisition	5,500,000	0.62	3,410,000
Total	22,950,000		$13,880,000
Depreciation expense:			
July 1, 20X6, acquisition	1,745,000	0.60*	$ 1,047,000
October 1, 20X6, acquisition	550,000	0.62	341,000
Total	2,295,000		$ 1,388,000
Accumulated depreciation:			
20X5	1,745,000	0.60*	$ 1,047,000
20X6	1,745,000	0.60*	1,047,000
October 1, 20X6, acquisition	137,500	0.62	85,250
20X7	550,000	0.62	341,000
20X7	1,745,000	0.60*	1,047,000
Total	5,922,500		$ 3,567,250

*Note that the exchange rate at the parent's date of acquisition is used rather than earlier historical exchange rates.

Problem 7-6, Concluded

Schedule B
Remeasurement of Tooling
Depreciation Expense and Accumulated Depreciation

	Balance in Books of Record (BR) Currency	Relevant Exchange Rate ($/FC)	Balance in Functional Currency ($)
Depreciable tooling:			
July 1, 20X6, acquisition	4,400,000	$0.60**	$2,640,000
October 1, 20X6, acquisition	1,600,000	0.62	992,000
Total	6,000,000		$3,632,000
Depreciation expense:			
July 1, 20X6, acquisition	440,000	0.60**	$ 264,000
October 1, 20X6, acquisition	160,000	0.62	99,200
Total	600,000		$ 363,200
Accumulated depreciation:			
20X5	440,000	0.60**	$ 264,000
20X6	440,000	0.60**	264,000
October 1, 20X6, acquisition	40,000	0.62	24,800
20X7	160,000	0.62	99,200
20X7	440,000	0.60**	264,000
Total	1,520,000		$ 916,000

**Note that the exchange rate at the parent's date of acquisition is used rather than earlier historical exchange rates.

(2) December 31, 20X7

Licensing Agreement	500,000*	
Investment in Subsidiary		500,000
Amortization Expense	50,000	
Retained Earnings	25,000	
Accumulated Amortization		75,000

*The dollar equivalent of the net assets at the date of acquisition was $5,760,000 (12,000,000 × 80% × $0.60). Therefore, the excess price of $500,000 paid is to be allocated to the licensing agreement.

PROBLEM 7-7

(1)

British Company
Remeasured Trial Balance
December 31, 20X5

Account	Dr. (Cr.) Balance in Euros as of Sept. 1, 20X4	Post-Sept. 1, 20X4 Activity Debit	Post-Sept. 1, 20X4 Activity Credit	Dr. (Cr.) Balance in Euros as of Dec. 31, 20X5	Exchange Rate	Dr. (Cr.) Balance in FC as of Dec. 31, 20X5
Working Capital Excluding Inventory	(1,900,000)	(1)650,000	(4) 12,400,000	495,456	1.30	644,093
	..... (2)	14,520,000	.....	.....		.....
	..... (6)	373,134	(5) 647,678	...		.....
	..... (8)	200,000	(7) 200,000	...		.....
	.....	..... (9)	100,000	.....		.....
Inventory	2,300,000	(4)12,400,000	(3) 300,000	2,200,000	Note 4	3,036,000
	.....	..... (4)	12,200,000	.....		.....
Licensing Agreements	840,000	.....	.....	840,000	1.40	1,176,000
	..... (7)	200,000	.....	200,000	Note 7	286,000
Accumulated Amortization—Licensing Agreements	(400,000)	.....	(10) 56,000	(654,000)	Note 10	(916,500)
	.....	..... (10)	168,000	.....		.....
	.....	..... (10)	30,000	.....		.....
Equipment	840,000	.....	.....	840,000	1.40	1,176,000
Accumulated Depreciation—Equipment	(600,000)	.....	(10) 28,000	(712,000)	Note 10	(996,800)
	.....	..... (10)	84,000	.....		.....
Buildings	2,160,000	.....	.....	2,160,000	1.40	3,024,000
Accumulated Depreciation—Buildings	(880,000)	.....	(10) 18,000	(952,000)	Note 10	(1,332,800)
	.....	..... (10)	54,000	.....		.....
Land	500,000	.....	(8) 100,000	400,000	1.40	560,000
Notes Payable	(1,000,000)	(5)647,678	(6) 373,134	(725,456)	1.30	(943,093)
Common Stock	(400,000)	.....	.....	(400,000)	1.40	(560,000)
Paid-In Capital in Excess of Par	(860,000)	.....	.....	(860,000)	1.40	(1,204,000)

Retained Earnings	(600,000)		(9)100,000	.....		(500,000)	Note 9
(697,000)							
Net Income (Sept. 1, 20X4–Dec. 31, 20X4)	.....	(3)	300,000	(1)	650,000	(248,000)	Note 11
(373,200)							
	.....	(10)	102,000	.....	.....		.....
Net Income 20X5	.....	(4)	12,200,000	(2)	14,520,000	(2,084,000)	
(2,401,100)							
	.....	(10)	336,000	(8)	100,000	...	.....
Cumulative:							
Remeasurement Gain/Loss to Balance	.....		.....	.....	.....		(477,600)
Totals	0		42,028,812		42,028,812		0
0							

Problem 7-7, Continued

	In Euros		Exchange Rate	In FC	
Note 1—Net income—20X4	650,000	€	1.44	936,000	FC
Note 2—Net income—20X5	14,520,000	€	1.37	19,892,400	FC
Note 3—Cost of sales—20X4:					
Beginning	2,300,000	€	1.40	3,220,000	FC
Purchases	—				
Available	2,300,000	€		3,220,000	FC
Ending	2,000,000		1.40	2,800,000	
Cost of sales	300,000	€		420,000	FC
Note 4—Cost of sales—20X5:					
Beginning	2,000,000	€	1.40	2,800,000	FC
1st Quarter purchase	3,000,000		1.45	4,350,000	
June 1 purchase	4,000,000		1.40	5,600,000	
September 1 purchase	5,400,000		1.38	7,452,000	
Available	14,400,000	€		20,202,000	FC
Ending	2,200,000		1.38	3,036,000	
Cost of sales	12,200,000	€		17,166,000	FC

Note 5—Quarterly payments on note payable:

End of Quarter	In FC		Exchange Rate	In Euros	
3rd Quarter, 20X4	150,000	FC	1.42	105,634	€
4th Quarter, 20X4	150,000		1.46	102,740	
1st Quarter, 20X5	150,000		1.43	104,895	
2nd Quarter, 20X5	150,000		1.39	107,914	
3rd Quarter, 20X5	150,000		1.35	111,111	
4th Quarter, 20X5	150,000		1.30	115,385	
	900,000	FC		647,679	€

	In FC		Exchange Rate	In Euros	
Note 6—October 31, 20X5, borrowing	500,000	FC	1.34	373,134	€

	In FC		Exchange Rate	In Euros	
Note 7—Acquire licensing agreement	286,000	FC	1.43	200,000	€

	In Euros		Exchange Rate	In FC	
Note 8—Sale of land:					
Selling price	200,000	€	1.43	286,000	FC
Book value	100,000		1.40	140,000	
Gain	100,000	€		146,000	FC

Problem 7-7, Continued

	In FC		Exchange Rate	In Euros	
Note 9—Declare and pay dividend.....	143,000	FC	1.43	100,000	€

Remeasured retained earnings in FC = 600,000 × 1.40 less dividend of 100,000 × 1.43 = 840,000 – 143,000 = 697,000 FC.

Note 10—Depreciation and amortization:

		In Euros			Exchange Rate	In FC	
20X4	Licensing.....	56,000	€	(a)	1.40	78,400	FC
	Equipment.....	28,000		(b)	1.40	39,200	
	Building	18,000		(c)	1.40	25,200	
		102,000	€			142,800	FC
20X5	Licensing.....	168,000	€	(d)	1.40	235,200	FC
	Licensing.....	30,000		(e)	1.43	42,900	
	Equipment.....	84,000		(f)	1.40	117,600	
	Building	54,000		(g)	1.40	75,600	
		336,000	€			471,300	FC

(a) 840,000/5 × 4/12 year
(b) 840,000/10 × 4/12 year
(c) 2,160,000/40 × 4/12 year
(d) 840,000/5
(e) 200,000/5 × 9/12 year
(f) 840,000/10
(g) 2,160,000/40

Accumulated depreciation and amortization:

	Licensing	Equipment	Building
Balance as of September 1, 20X4:			
400,000 × 1.40.....	560,000		
600,000 × 1.40.....		840,000	
880,000 × 1.40.....			1,232,000
Accumulated since September 1, 20X4, in 20X4	78,400	39,200	25,200
Accumulated since September 1, 20X4, in 20X5	278,100	117,600	75,600
	916,500	996,800	1,332,800

Note 11—Remeasured net income:

	20X4	20X5
Net income excluding cost of sales, amortization, and depreciation (see Notes 1 and 2)	936,000	19,892,400
Cost of sales (see Note 4).....	(420,000)	(17,166,000)
Depreciation/amortization (see Note 10)	(142,800)	(471,300)
Gain on sale of land (see Note 8).....		146,000
Total	373,200	2,401,100

Problem 7-7, Concluded

(2) Translated value of cost of sales:

	In FC		Exchange Rate	In $
20X4 Cost of sales (see Note 3)	420,000	FC	1.19	$ 499,800
20X4 Cost of sales (see Note 4)	17,166,000		1.24	21,285,840

PROBLEM 7-8

Tobac Inc.
Trial Balance Translation
December 31, 20X7

Account	Balance in FC	Relevant Exchange Rate	Balance in Dollars
Cash	3,087,385FC	$0.65	$ 2,006,800
Net Accounts Receivable	12,000,000	0.65	7,800,000
Inventory	8,000,000	0.65	5,200,000
Depreciable Assets	34,000,000	0.65	22,100,000
Accumulated Depreciation	(12,300,000)	0.65	(7,995,000)
Due to Balfour	(2,087,385)	0.65	(1,356,800)
Other Liabilities	(3,700,000)	0.65	(2,405,000)
Common Stock	(19,000,000)	0.55	(10,450,000)
Paid-In Capital in Excess of Par	(8,480,000)	0.55	(4,664,000)
Retained Earnings, January 1, 20X7	(7,520,000)	Note A	(4,266,000)
Sales	(40,000,000)	0.67	(26,800,000)
Cost of Sales	27,600,000	0.67	18,492,000
Depreciation Expense	3,300,000	0.67	2,211,000
Interest Expense on Balfour Loan (accrued at December 31)	118,154	0.65	76,800
Exchange Gain on Balfour Loan	(30,769)	0.67	(20,615)
Other Expenses	5,012,615	0.67	3,358,452
Cumulative Translation Adjustment			(3,287,637)
Total	0 FC		$ 0

Note A—The translated balance in retained earnings is as follows:

Balance on July 1, 20X5 (2,520,000 FC × $0.55)	$1,386,000
Last six months, 20X5 income (2,000,000 FC × $0.57)	1,140,000
20X6 Income (3,000,000 FC × $0.58)	1,740,000
Retained earnings, December 31, 20X6	$4,266,000

Problem 7-8, Continued

Consolidating the Foreign Subsidiary
Balfour Corporation and Tobac Inc.
Worksheet for Consolidated Financial Statements (in dollars)
For Year Ended December 31, 20X7

	Trial Balance		Eliminations and Adjustments				Consolidated Income Statement	Consolidated Balance Sheet
	Balfour	Tobac	Dr.		Cr.			
Cash	4,463,200	6,470,000	2,006,800					
Net Accounts Receivable	15,350,000	23,150,000	7,800,000					
Inventory	16,300,000	21,500,000	5,200,000					
Due from Tobac	1,356,800					(LN1)	1,356,800	
Investment in Tobac	23,712,363				(CY1)		2,682,363	
					(EL)		19,380,000	
					(D/A)		1,650,000	
Depreciable Assets	68,000,000	90,100,000	22,100,000					
Equipment		1,462,500	(D/A)	1,950,000		(D/A)	487,500	
Accumulated Depreciation	(42,000,000)	(49,995,000)	(7,995,000)					
Due to Balfour			(1,356,800)	(LN1)	1,356,800			
Other Liabilities	(27,000,000)	(29,405,000)	(2,405,000)					
Common Stock—Parent	(35,000,000)							(35,000,000)
Common Stock—Subsidiary			(10,450,000)	(EL)	10,450,000			
Paid-In Capital in Excess of Par—Parent	(2,000,000)	(2,000,000)						
Paid-In Capital in Excess of Par—Subsidiary			(4,664,000)	(EL)	4,664,000			
Retained Earnings, January 1, 20X7—Parent	(4,500,000)	(4,240,500)		(D/A)	259,500			
Retained Earnings, January 1, 20X7—Subsidiary			(4,266,000)	(EL)	4,266,000			
Sales	(98,000,000)	(124,800,000)	(26,800,000)					
Cost of Sales	64,000,000		18,492,000					82,492,000

Depreciation Expense		8,076,800			2,211,000							10,287,800
Interest Expense on Balfour Loan				76,800			(LN2)	76,800				
Exchange Gain on Balfour Loan				(20,615)							(20,615)	
Other Expenses		10,000,000			3,358,452	(D/A)		201,000				13,559,452
Interest Income		(76,800)			(LN2)		76,800					
Subsidiary Income		(2,682,363)				(CY1)	2,682,363					
Cumulative Translation Adjustment				(3,287,637)				(D/A)	273,000			(3,560,637)
Total		0		0			25,906,463		25,906,463			
Combined Net Income											(18,481,363)	(18,481,363)
Totals												0

Problem 7-8, Concluded

Eliminations and Adjustments:

(CY1) Eliminate the subsidiary income account against the investment account.

(EL) Eliminate the subsidiary's January 1, 20X7, equity balances against the investment account.

(D/A) Distribute the excess of cost over book value and record appropriate amortization.

Cost to acquire subsidiary	33,000,000
FC	
Book value of subsidiary	30,000,000
Excess of cost over book value	3,000,000
FC	
Annual depreciation of excess (3,000,000 FC ÷ 10)	300,000
FC	
Accumulated depreciation of excess at December 31, 20X6	
(300,000 FC × 1.5 years)	450,000
FC	
Excess of cost over book value in dollars at:	
July 1, 20X5 (3,000,000 FC × $0.55)	$1,650,000
December 31, 20X7 (3,000,000 FC × $0.65)	$1,950,000
Accumulated depreciation of excess at December 31, 20X7, in dollars	
(750,000 FC × $0.65)	$487,500
Depreciation expense in dollars:	
20X5 (150,000 FC × $0.57)	$85,500
20X6 (300,000 FC × $0.58)	$174,000
20X7 (300,000 FC × $0.67)	$201,000

(LN1) Eliminate the intercompany loan balances.

(LN2) Eliminate interest on intercompany loans.

PROBLEM 7-9

Tobac, Inc.
Trial Balance Translation
December 31, 20X7

Account	Balance in Foreign Currency	Relevant Exchange Rate	Balance in Dollars
Cash	3,087,385 FC	$0.65	$ 2,006,800
Net Accounts Receivable	12,000,000	0.65	7,800,000
Inventory	8,000,000	Note A	4,855,000
Depreciable Assets	34,000,000	Note B	19,060,000
Accumulated Depreciation	(12,300,000)	Note B	(6,792,000)
Due to Balfour	(2,087,385)	0.65	(1,356,800)
Other Liabilities	(3,700,000)	0.65	(2,405,000)
Common Stock	(19,000,000)	0.55	(10,450,000)
Paid-In Capital in Excess of Par	(8,480,000)	0.55	(4,664,000)
Retained Earnings, January 1, 20X7	(7,520,000)	Note C	(4,856,000)
Sales	(40,000,000)	0.67	(26,800,000)
Cost of Sales	27,600,000	Note D	18,048,000
Depreciation Expense	3,300,000	Note B	1,842,000
Interest Expense on Balfour Loan (accrued at December 31, 20X7)	118,154	0.65	76,800
Exchange Gain on Balfour Loan	(30,769)	0.67	(20,615)
Other Expenses	5,012,615	0.67	3,358,452
Remeasurement Loss (Gain)			297,363
Total	0 FC		$ 0

Note A—Ending inventory consists of:

Inventory acquired before July 1, 20X5 (1,500,000 FC × $0.55)	$ 825,000
Inventory acquired in the first quarter of 20X7 (6,500,000 FC × $0.62)	4,030,000
	$ 4,855,000

Note B—Depreciable assets consists of the following:

Assets acquired prior to January 1, 20X5 (30,000,000 FC × $0.55)	$16,500,000
Assets acquired on April 1, 20X7 (4,000,000 FC × $0.64)	2,560,000
	$19,060,000

Accumulated depreciation consists of:

Assets acquired prior to July 1, 20X5 (30,000,000 FC × 4/10 × $0.55)	$6,600,000
Assets acquired on April 1, 20X7 (4,000,000 FC × 1/10 × 9/12 year × $0.64)	192,000
	$6,792,000

Problem 7-9, Continued

Depreciation expense consists of:

Assets acquired prior to July 1, 20X5	
(30,000,000 FC × 1/10 × $0.55)	$1,650,000
Assets acquired on April 1, 20X7	
(4,000,000 FC × 1/10 × 9/12 year × $0.64)	192,000
	$1,842,000

Note C—The translated balance of retained earnings is as follows:

Balance on July 1, 20X5 (2,520,000 FC × $0.55)	$1,386,000
Last six months, 20X5 income	1,610,000
20X6 income	1,860,000
Retained earnings, December 31, 20X6	$4,856,000

Note D—Cost of sales consists of:

Inventory purchases over past nine months of 20X7	
(23,400,000 FC × $0.66)	$15,444,000
Inventory purchased in the first quarter of 20X7	
(4,200,000 FC × $0.62)	2,604,000
	$18,048,000

Problem 7-9, Continued

Consolidating the Foreign Subsidiary
Balfour Corporation and Tobac Inc.
Worksheet for Consolidated Financial Statements (in dollars)
For Year Ended December 31, 20X7

	Trial Balance		Eliminations and Adjustments				Consolidated Income Statement	Consolidated Balance Sheet
	Balfour	Tobac	Dr.		Cr.			
Cash	4,463,200	6,470,000	2,006,800					
Net Accounts Receivable	15,350,000	23,150,000	7,800,000					
Inventory	16,300,000	21,155,000	4,855,000					
Due from Tobac	1,356,800				(LN1)		1,356,800	
Investment in Tobac	25,115,363				(CY1)		3,495,363	
				(EL)		19,970,000		
				(D/A)		1,650,000		
Depreciable Assets	68,000,000	87,060,000	19,060,000					
Equipment		1,237,500	(D/A)	1,650,000	(D/A)		412,500	
Accumulated Depreciation	(42,000,000)	(48,792,000)	(6,792,000)					
Due to Balfour			(1,356,800)	(LN1)		1,356,800		
Other Liabilities	(27,000,000)	(29,405,000)	(2,405,000)					
Common Stock—Parent	(35,000,000)							(35,000,000)
Common Stock—Subsidiary			(10,450,000)	(EL)		10,450,000		
Paid-In Capital in Excess of Par—Parent	(2,000,000)	(2,000,000)						
Paid-In Capital in Excess of Par—Subsidiary			(4,664,000)	(EL)		4,664,000		
Retained Earnings, January 1, 20X7—Parent	(5,090,000)	(4,842,500)		(D/A)		247,500		
Retained Earnings, January 1, 20X7—Subsidiary			(4,856,000)	(EL)		4,856,000		
Sales	(98,000,000)	(124,800,000)	(26,800,000)					
Cost of Sales	64,000,000		18,048,000					82,048,000

Depreciation Expense		8,076,800			1,842,000							9,918,800
Interest Expense on Balfour Loan				76,800			(LN2)	76,800				
Exchange Gain on Balfour Loan				(20,615)							(20,615)	
Other Expenses		10,000,000			3,358,452	(D/A)		165,000				13,523,452
Interest Income		(76,800)			(LN2)		76,800					
Subsidiary Income		(3,495,363)			(CY1)		3,495,363					
Remeasurement Loss				297,363							297,363	
Total		0		0			26,961,463			26,961,463		
Combined Net Income											(19,033,000)	
									(19,033,000)			
Totals												0

Problem 7-9, Concluded

Eliminations and Adjustments:

(CY1) Eliminate the subsidiary income account against the investment account.

(EL) Eliminate the subsidiary's January 1, 20X7, equity balances against the investment account.

(D/A) Distribute the excess of cost over book value and record appropriate amortization.

Cost to acquire subsidiary	33,000,000 FC
Book value of subsidiary	30,000,000
Excess of cost over book value	3,000,000
FC	
Annual depreciation of excess (3,000,000 FC ÷ 10)	300,000
FC	
Accumulated depreciation of excess at December 31, 20X6	
(300,000 FC × 1.5 years)	450,000
FC	
Excess of cost over book value in dollars at:	
July 1, 20X5 (3,000,000 FC × $0.55)	$1,650,000
Accumulated depreciation of excess at December 13, 20X7, in dollars	
(750,000 FC × $0.55)	$412,500
Depreciation expense in dollars:	
20X5 (150,000 FC × $0.55)	$82,500
20X6 (300,000 FC × $0.55)	$165,000
20X7 (300,000 FC × $0.55)	$165,000

(LN1) Eliminate the intercompany loan balances.

(LN2) Eliminate the interest on intercompany loan.

PROBLEM 7-10

Korbel Manufacturing
Trial Balance Translation
December 31, 20X6

Account	Dr. (Cr.) Balance in FC	Relevant Exchange Rate	Dr. (Cr.) Balance in Dollars
Working Capital	5,200,000 FC	$1.15	$ 5,980,000
Depreciable Assets	22,500,000	1.15	25,875,000
Accumulated Depreciation	(6,740,000)	1.15	(7,751,000)
Other Assets	3,080,000	1.15	3,542,000
Due to Troutman	(80,000)	1.15	(92,000)
Notes Payable	(1,600,000)	1.15	(1,840,000)
Common Stock at Par Value	(5,000,000)	1.10	(5,500,000)
Paid-In Capital in Excess of Par	(10,000,000)	1.10	(11,000,000)
Retained Earnings	(6,260,000)	Note A	(6,956,800)
20X6 Net Income	(1,100,000)	1.17	(1,287,000)
Cumulative Translation Adjustment			(970,200)
Total	0 FC		$ 0

Note A—The translated balance in retained earnings is as follows:

	Balance in FC	Relevant Exchange Rate	Dr. (Cr.) Balance in Dollars
Balance on July 1, 20X4	5,000,000 FC	$1.10	$5,500,000
Last six months of 20X4 net income	900,000	1.12	1,008,000
20X4 Dividend declared	(240,000)	1.13	(271,200)
20X5 Net income	800,000	1.20	960,000
20X6 Dividend declared	(200,000)	1.20	(240,000)
Retained earnings, December 31, 20X6	6,260,000 FC		$6,956,800

Problem 7-10, Continued

Consolidating the Foreign Subsidiary
Troutman International and Korbel Manufacturing
Worksheet for Consolidated Financial Statements (in dollars)
For Year Ended December 31, 20X6

	Trial Balance		Eliminations and Adjustments		Consolidated Income Statement	Noncontrolling Interest	Controlling Retained Earnings	Consolidated Balance Sheet
	Troutman	Korbel	Dr.	Cr.				
Working Capital	7,418,580	5,980,000						13,398,580
Depreciable Assets	34,000,000	25,875,000	(D/A) 1,035,000					60,910,000
Accumulated Depreciation/Amortization	(11,560,000)	(7,751,000)		(A) 575,000				(19,886,000)
Goodwill		(D/A) 2,415,000		(A) 483,000				1,932,000
Due from Korbel	92,000		(IA) 92,000					
Investment in Korbel	25,569,420			(CY1) 1,158,300				
			(EL) 21,111,120					
			(D/A) 3,300,000					
Other Assets	2,070,000	3,542,000						5,612,000
Due to Troutman		(92,000)	(IA) 92,000					
Notes Payable	(4,000,000)	(1,840,000)						(5,840,000)
Common Stock at Par Value	(16,000,000)	(5,500,000)	(EL) 4,950,000				(550,000)	(16,000,000)
Paid-In Capital in Excess of Par	(26,000,000)	(11,000,000)	(EL) 9,900,000				(1,100,000)	(26,000,000)
Retained Earnings—Parent	(8,000,000)		(A) 352,000					(7,132,000)
		(A) 516,600						
Retained Earnings—Subsidiary		(6,956,800)	(EL) 6,261,120				(695,680)	
20X6 Net Income—Parent	(3,590,000)		(A) 234,000			(2,197,700)		
		(CY1) 1,158,300						
20X6 Net Income—Subsidiary		(1,287,000)				(1,287,000)		
Cumulative Translation Adjustment—Subsidiary		(970,200)		(CT)	(873,180)		(97,020)	
Cumulative Translation Adjustment—Parent		(CT) (873,180)		(D/A)	150,000			(1,067,180)
			(A) 44,000					
Total	0	0	26,040,240		26,040,240			
Consolidated Net Income					(3,484,700)			
To Noncontrolling Interest (NCI)					128,700	(128,700)		

Balance to Controlling Interest	3,356,000		(3,356,000)
Total Noncontrolling Interest		(2,571,400)	(2,571,400)
Retained Earnings—Controlling Interest, December 31,20X6		(10,488,000)	(10,488,000)
Totals			0

Problem 7-10, Concluded

Eliminations and Adjustments:

(CY1) Eliminate the entries in the subsidiary income account against the investment in subsidiary account to record the parent's controlling interest subsidiary.

(EL) Eliminate the parent's percentage of the subsidiary's beginning-of-period equity balances against the balance of the investment account.

(D/A) Distribute the excess of cost over book value at the time of acquisition.

Cost to acquire subsidiary	21,000,000	FC
Book value of subsidiary	18,000,000	
Excess of cost over book value	3,000,000	FC

Allocation of excess of cost over book value:

Allocated to a licensing agreement to be amortized over 4.5 years	900,000	FC	(200,000 FC of amortization per year)
Allocated to goodwill	2,100,000		
	3,000,000	FC	

Excess of cost over book value in dollars at:	Total	Allocated to Licensing Agreement	Allocated to Goodwill
July 1, 20X4 (3,000,000 FC × $1.10)	$3,300,000	$ 990,000	$2,3
December 31, 20X6 (3,000,000 FC × $1.15)	3,450,000	1,035,000	2,415,000

(A) Record appropriate depreciation/amortization on relevant items of cost in excess of book value.

Accumulated amortization on licensing agreement:

(500,000 FC × $1.15) $575,000 (200,000 FC per year × 2.5 years)

Amortization expense on licensing agreement in dollars:

20X4	(100,000 FC × $1.12)	$112,000
20X5	(200,000 FC × $1.20)	240,000
20X6	(200,000 FC × $1.17)	234,000

Impairment loss on goodwill:

20X5	(420,000 FC × $1.23)	$516,600

Year-end 20X6 translated value of goodwill:

Original amount of goodwill	2,100,000	FC
Less: Impairment loss	(420,000)	
Net balance	1,680,000	FC
Year-end 20X6 exchange rate	× $1.15	
Translated value	$1,932,000	

(IA) Eliminate intercompany trade balances.

(CT) Distribute the cumulative translation adjustment between controlling interest and NCI.

CHAPTER 8

UNDERSTANDING THE ISSUES

1. Partnerships are generally less formal than other types of organizations and yet it is important to consider a number of factors in a partnership agreement. Individual partners have more legal exposure in a partnership because, unlike a corporation, partnerships are characterized by unlimited liability. However, limited partners, limited liability corporations, and limited liability partnerships provide for a significant reduction in such liability. Partnerships offer significant tax advantages over a corporation in that they are not taxed as a separate entity and, therefore, avoid double taxation issues. However, other types of tax option organizations are also available that avoid double taxation.

2. The use of a salary or bonus as a means of allocating profits would be appropriate when there is a desire to reward partners for personal services or significant personal time commitments to the partnership. The use of interest on capital as a means of allocating profits would be appropriate when the business is capital intensive versus labor intensive or if the partners are not significantly involved in the day-to-day operations.

3. Unless the profit-sharing agreement states otherwise, all provisions of the agreement should be satisfied except the final allocation of any remaining profits. Rather than finally allocating any remaining profits, the profit/loss percentages would be used to allocate the resulting deficiency. In contemplation of such a condition, it is possible that a profit-sharing agreement would call for satisfying each provision, in order of priority, to whatever extent possible. In the case of a loss, the only provision that could be satisfied would be that which allocates the loss between the partners per their profit/loss percentages.

4. Generally speaking, a partner's capital account would be debited for the following: their share of any partnership losses, the closing of the drawing account to capital, and any withdrawals whose amount is deemed to be excessive per the partnership agreement and therefore to be considered as a direct reduction of capital.

EXERCISES

EXERCISE 8-1

(1) Differences to be found in the assets listed on the balance sheet of the corporation and the balance sheet of the partnership would be:

a. Cost of assets—Assets of the partnership were acquired during a period of rising prices. It would be expected that the original cost of the land would be much less than its present fair value, which would be the cost to the corporation. The value of the land (and to a lesser degree, the building) would also probably be greatly enhanced by the location in a large shopping center in a fashionable suburban area. It would also be expected that other depreciable assets, such as fixtures and equipment, would have greater value than their depreciated cost on the partnership balance sheet. However, in a going concern, some items might reflect unrecovered cost in a greater amount than their fair value; for example, a new delivery truck.

Other assets that the partnership might own would be influenced by a variety of factors. Inventory value would be considerably greater than cost if the partnership employed LIFO. Any marketable securities owned by the partnership might also have a market value in excess of cost.

b. Goodwill—Only purchased goodwill is generally recognized on a balance sheet. It is very likely that the partnership had a going-concern value substantially in excess of the fair value of its assets. This goodwill could be measured by comparing the profitability of the partnership to the profitability of other similar firms in the same trade area and capitalizing the profits of the partnership in excess of the profits of other similar firms for the period of years that the goodwill should be expected to last. Because the corporation is to purchase the fair value of the partners' interests, it must pay not only for the fair value of the identifiable assets but also for the goodwill of the partnership.

(2) Differences that would be expected in a comparison of an income statement prepared for the proposed corporation and an income statement prepared for the partnership are:

a. Depreciation would be expected to be different over the remaining useful lives in relation to the difference between fair value and original cost of depreciable assets. It is possible that depreciation charges for some assets would be less for the corporation, but generally these charges would be expected to be more, and there should be a net increase in the total depreciation expense.

b. Although cost of goods sold for the corporation would normally not be expected to be materially different from that for the partnership, a difference would arise if the partnership employed LIFO, but even then the difference would not occur until a portion of the LIFO base is sold.

c. Salaries would be greater for the corporation than for the partnership. The allocation of salaries to partners is a method of distributing the net income of a partnership, and thus partners' salaries are not usually identified as salary expense on a partnership income statement. Officers of a corporation are paid salaries by the separate legal entity (the corporation), even though the officers may also be the owners of the corporation as stockholders.

d. Directors' fees would be incurred by the corporation but not by the partnership.

Exercise 8-1, Concluded

e. Taxes would be greater for the corporation than for the partnership because of several kinds of taxes imposed on a corporation that are not imposed on a partnership. These taxes would include federal and state (and perhaps city) income taxes and/or franchise taxes.

f. Earnings per share should be listed on a corporation's income statement and dividends per share would also generally be shown; this information would not appear on a partnership's income statement.

g. Although not a difference, it should be noted that the allocation of interest on partners' average capital is a method of allocating partnership net income and therefore is usually not shown on the partnership's income statement. Likewise, dividends on preferred stock and on common stock are distributions of corporate earnings and should not be shown as expenses on the corporation's income statement.

EXERCISE 8-2

Some potential problems and concerns associated with the agreement include the following:

- It is unclear as to why a salary would be allocated to O'Connor given the fact that he/she will not be active in the business.
- The agreement states that the partners will receive a salary. Is this intended to mean that they will actually withdraw such an amount?
- Feldman's bonus is a percentage of net income rather than a percentage of net income after the bonus. Providing for a bonus as a percentage of net income means that there will be a bonus on the bonus.
- With respect to interest on capital, it is important to set forth how capital will be measured. For example, is it average capital, ending capital, or a weighted-average capital amount?
- It is not unusual to address how nonnormal elements of income would be allocated. However, it seems that a profit/loss percentage rather than a percentage interest in capital would be most appropriate.
- It is good planning to address the withdrawal of partners and how such matters will be resolved. However, setting a withdrawal price as a function of book value may fail to capture the real value of both tangible and intangible net assets of the entity.
- Measuring capital balances according to generally accepted accounting principles (GAAP) is appropriate. However, GAAP allow for use of either the bonus or goodwill method when accounting for changes in the ownership structure of a partnership. It would be important to set forth which method would be used.
- A failure to limit withdrawals may result in deteriorating levels of cash flows and operating capital. Perhaps more definitive guidelines should be established especially in connection with unusual withdrawal requests.

EXERCISE 8-3

Allocation of 20X6 profits—based on existing agreement:

	Kennedy (35%)	Walker (35%)	O'Brien (30%)	Total
Salaries	$ 80,000	$ 80,000	$ 60,000	$220,000
Interest (see Schedule A)	3,375	4,375	3,375	11,125
Bonus (see Schedule B)	22,,500	22,500	0	45,000
Contribution allowance	4,000	4,000	4,000	12,000
Subtotal	$109,875	$110,875	$ 67,375	$288,125
Remaining profits	46,156	46,156	39,563	131,875
Total	$156,031	$157,031	$106,938	$420,000

Allocation of 20X6 profits—assuming profit allocation proposal was applied:

	Kennedy (35%)	Walker (35%)	O'Brien (30%)	Total
Salaries	$ 80,000	$ 80,000	$ 60,000	$220,000
Interest (see Schedule C)	2,250	3,250	3,300	8,800
Bonus (see Schedule D)	25,875	25,875	0	51,750
Contribution allowance	—	—	—	—
Subtotal	$ 108,125	$109,125	$ 63,300	$280,550
Remaining profits	70,858	70,858	60,735	202,450
Total	$178,983	$179,983	$124,035	$483,000

20X6 Allocation of profits to O'Brien:

Based on original agreement	$106,938
Based on proposed agreement	124,035
Suggested difference	17,097
Proposed bonus to compensate for difference	30,000

Proposed bonus would appear to be excessive even when considering the time value of money.

Schedule A—Calculation of Interest on Weighted-Average Capital

Weighted-Average Capital, Kennedy

Amount Invested	Number of Months Invested	Weighted Dollars
$100,000	3	$300,000
70,000	3	210,000
50,000	6	300,000
	12	$810,000
Weighted-average		$ 67,500
Interest @ 5%		3,375

Weighted-Average Capital, Walker

Amount Invested	Number of Months Invested	Weighted Dollars
$120,000	3	$ 360,000
90,000	3	270,000
70,000	6	420,000
	12	$1,050,000
Weighted-average		$ 87,500
Interest @ 5%		4,375

Exercise 8-3, Continued

Weighted-Average Capital, O'Brien

Amount Invested	Number of Months Invested	Weighted Dollars
$70,000	11	$770,000
40,000	1	40,000
	12	$810,000

Weighted-average	$ 67,500
Interest @ 5%.....	3,375

Schedule B—Determination of Annual Bonus

Bonus = 12%($420,000 – Bonus)
112% Bonus = 12%($420,000)
112% Bonus = $50,400
Bonus = $45,000 allocated equally between Kennedy and Walker

Schedule C—Calculation of Interest on Weighted-Average Capital*

Weighted-Average Capital, Kennedy

Amount Invested	Number of Months Invested	Weighted Dollars
$100,000	3	$300,000
40,000	3	120,000
20,000	6	120,000
	12	$540,000

Weighted-average	$ 45,000
Interest @ 5%.....	2,250

Weighted-Average Capital, Walker

Amount Invested	Number of Months Invested	Weighted Dollars
$120,000	3	$360,000
60,000	3	180,000
40,000	6	240,000
	12	$780,000

Weighted-average.....	$ 65,000
Interest @ 5%	3,250

Weighted-Average Capital, O'Brien

Amount Invested	Number of Months Invested	Weighted Dollars
$70,000	6	$420,000
67,000	5	335,000
37,000	1	37,000
	12	$792,000

Weighted-average	$ 66,000
Interest @ 5%.....	3,300

* The average capital balances assume that the actual contribution amounts are withdrawals and that they occurred on or before March 31 of 20X6.

Exercise 8-3, Concluded

Schedule D—Determination of Annual Bonus

Bonus = 12%($483,000 – Bonus)
112% Bonus = 12%($483,000)
112% Bonus = $57,960
Bonus = $51,750 allocated equally between Kennedy and Walker

EXERCISE 8-4

(1)

a.

	Medina	Harris	Anderson	Total
Interest on capital		$ 400	$ 2,000	$ 2,400
Salaries	$ 20,000	30,000		50,000
Subtotal	$ 20,000	$ 30,400	$ 2,000	$ 52,400
Deficiency	(11,200)	(5,600)	(5,600)	(22,400)
Income (loss)	$ 8,800	$ 24,800	$ (3,600)	$ 30,000

b.

	Medina	Harris	Anderson	Total
Interest on capital		$ 400	$ 2,000	$ 2,400
Salaries	$ 11,040	16,560		27,600
Total	$ 11,040	$ 16,960	$ 2,000	$ 30,000

(2) Due to the active participation of Medina and Harris and the passive involvement of Anderson, it would seem that the second method of allocation is most appropriate. Anderson is basically a provider of capital and should receive a fair return on his/her investment. The second method also emphasizes the importance of salaries to the active partners and priorities.

EXERCISE 8-5

Allocation of typical profits under the original partnership's agreement:

	Collins	Baker	Lebo	Cumulative Total
Salaries	$ 50,000	$ 50,000	$ 50,000	$150,000
Bonus to Baker		25,000		175,000
Bonus to Collins*	80,000			255,000
Interest on capital		2,000	15,000	272,000
Remaining profits	304,000	182,400	121,600	880,000
Total	$ 434,000	$ 259,400	$ 186,600	

*Bonus = 10%(Net Income – Bonus)
110% Bonus = 10%(Net Income)
110% Bonus = $88,000
Bonus = $80,000

Allocation of assumed profits under the Gordon proposal:

	Collins	Baker	Lebo	Gordon	Cumulative Total
Salaries	$50,000	$50,000	$50,000	$	50,000
$200,000					
Bonus to Baker		25,000			
225,000					
Bonus to Gordon				330,000	
555,000					
Interest on capital		2,000	15,000		
572,000					
Subtotal	$50,000	$77,000	$65,000	$	380,000

At this point, only $50,000 of profits has been allocated to Collins. In order for Collins to attain her previous level of allocated profits of $434,000, the new partnership would need to have $1,280,000 of remaining profits ($434,000 – $50,000 = $384,000 = 30% of remaining net income). In order for Collins to increase her previous net income by $60,000, the new partnership would need to have $1,480,000 of remaining profits.

In conclusion, if Collins were to just maintain her previous level of allocated net income, the new partnership would have to generate net income of $1,852,000 ($572,000 + $1,280,000). For Collins to increase her previously allocated net income by $60,000, the new partnership would have to generate net income of $2,152,000. The remaining question is whether or not Gordon can realize such profits from the licensing agreement. Keeping in mind that the original partnership has typically had profits of $880,000, the suggested increases in profits are very aggressive.

A minimum increase in profits of $972,000 ($1,852,000 less $880,000) would largely have to be traceable to the new product. This represents a profit margin of approximately 23% based on sales of $4,200,000. One must question whether the estimated sales levels and profit margins are attainable. Perhaps you should advise your client to propose a revised profit agreement that does not risk previous levels of profit participation to such an extent.

EXERCISE 8-6

20X6	Cramer	Larson	Hughes	Total
Original profit allocation:				
Salaries	$ 80,000	$ 60,000	$ 60,000	$200,000
Remaining profit	100,000	100,000	100,000	300,000
Total	$180,000	$160,000	$160,000	$500,000
Revised profit allocation:				
Salaries	$ 80,000	$ 60,000	$ 60,000	$200,000
Interest on capital (see Schedule A)	6,250	11,000	4,750	22,000
Remaining profit	92,667	92,667	92,667	278,000
Total	$178,917	$163,667	$157,417	$500,000
Difference in totals	$ 1,083	$ (3,667)	$ 2,583	$ 0

20X7	Cramer	Larson	Hughes	Total
Original profit allocation:				
Salaries	$ 80,000	$ 60,000	$ 60,000	$200,000
Remaining profit	70,000	70,000	70,000	210,000
Total	$150,000	$130,000	$130,000	$410,000
Revised profit allocation:				
Salaries	$ 80,000	$ 60,000	$ 60,000	$200,000
Interest on capital (see Schedule B)	3,308	1,950	2,992	8,250
Remaining profit	67,250	67,250	67,250	201,750
Total	$150,558	$129,200	$130,242	$410,000
Difference in totals	$ (558)	$ 800	$ (242)	$ 0
Total of differences	$ 525	$ (2,876)	$ 2,342	$ 0

Entry to reallocate profits:

Capital, Cramer	525	
Capital, Hughes	2,342	
Capital, Larson		2,867

Exercise 8-6, Concluded

Schedule A—Revised Calculation of Interest on Weighted-Average Capital

Weighted-Average Capital, Cramer

Amount Invested	Number of Months Invested	Weighted Dollars
$180,000	3	$540,000
30,000	6	180,000
10,000	3	30,000
	12	$750,000

Weighted-average	$ 62,500
Interest @ 10%.....	6,250

Weighted-Average Capital, Larson

Amount Invested	Number of Months Invested	Weighted Dollars
$250,000	3	$ 750,000
80,000	6	480,000
30,000	3	90,000
	12	$1,320,000

Weighted-average.....	$ 110,000
Interest @ 10%	11,000

Weighted-Average Capital, Hughes

Amount Invested	Number of Months Invested	Weighted Dollars
$60,000	9	$540,000
10,000	3	30,000
	12	$570,000

Weighted-average	$ 47,500
Interest @ 10%.....	4,750

Schedule B—Revised Calculation of Interest on Weighted-Average Capital

Weighted-Average Capital, Cramer

Amount Invested	Number of Months Invested	Weighted Dollars
$188,917	1	$188,917
18,917	11	208,083
	12	$397,000

Weighted-average	$ 33,083
Interest @ 10%.....	3,308

Weighted-Average Capital, Larson

Amount Invested	Number of Months Invested	Weighted Dollars
$193,667	1	$193,667
3,667	11	40,333
	12	$234,000

Weighted-average.....	$ 19,500
Interest @ 10%	1,950

Weighted-Average Capital, Hughes

Amount Invested	Number of Months Invested	Weighted Dollars
$167,417	1	$167,417
17,417	11	191,583
	12	$359,000

Weighted-average	$ 29,917
Interest @ 10%.....	2,992

EXERCISE 8-7

	Gabriel	Hall	Cumulative Total
Salaries	$35,000	$40,000	$ 75,000
Bonus (Note A)	12,000		87,000
Interest on capital (Note B)	11,466	5,333	103,799
Profit and loss percentage	11,280	16,921	132,000
Total	$69,746	$62,254	

Note A: Bonus = 10%(Net Income – Bonus)
110% Bonus = 10%(Net Income)
110% Bonus = $13,200
Bonus = $12,000

Note B: Calculation of weighted-average capital balances

Gabriel Average Capital		Hall Average Capital	
$120,000 × 3/12 =	$ 30,000	$ 60,000 ×10/12 =	$50,000
140,000 × 5/12 =	58,333	100,000 × 2/12 =	16,667
170,000 × 2/12 =	28,333		
160,000 × 2/12 =	26,667		
	$143,333		$66,667
	× 8%		× 8%
	$ 11,466		$ 5,333

EXERCISE 8-8

(1) The advantage of using the weighted-average capital balance is that the interest paid then represents payment for the use of funds in the partnership throughout the year. Thus, it buffers the distribution of interest from large deposits made for the sole purpose of obtaining an advantage if the interest calculations were based on the beginning or ending capital balance. The disadvantage is that the calculation is more complex than alternative means of computing interest on capital contributed.

(2)

Amount Invested	Number of Months Invested	Weighted Dollars	Average
Xavier			
$24,000	3	$ 72,000	
28,500	9	256,500	
	12	$328,500	$27,375
Yates			
$17,500	12	$210,000	$17,500
Zale			
$13,000	6	$ 78,000	
15,000	2	30,000	
30,000	4	120,000	
	12	$228,000	$19,000

Exercise 8-8, Concluded

Interest for 20X2:

Xavier	$27,375 × 0.08 =	$2,190	
Yates	17,500 × 0.08 =	1,400	
Zale	19,000 × 0.08 =		1,520
		$5,110	

(3) Analysis of Capital Accounts

	Xavier	Yates	Zale	Total
Beginning balance, January 1, 20X2	$24,000	$17,500	$13,000	$54,500
Add: Investments	4,500	—	17,000	21,500
Income for year (see Schedule A)	7,520	6,730	6,850	21,100
Less withdrawals	(1,000)	(1,000)	(500)	(2,500)
Ending balance, December 31, 20X2	$35,020	$23,230	$36,350	$94,600

Schedule A
Profit Allocation

	Xavier	Yates	Zale	Total
Interest	$2,190	$1,400	$1,520	$ 5,110
Balance	5,330	5,330	5,330	15,990
Income	$7,520	$6,730	$6,850	$21,100

EXERCISE 8-9

(1)

Allocation of Profits Based on Alternative A

Assumed income level	$500,000	$560,000	$600,000
Salary	$120,000	$120,000	$120,000
Interest (Note A)	5,500	5,500	5,500
Bonus	—	—	—
Share of net income (10%)	50,000	56,000	60,000
Total	$175,500	$181,500	$185,500
Probability of occurrence	× 30%	× 50%	× 20%
Weighted outcome	$ 52,650	$ 90,750	$ 37,100
Combined most likely profit	$180,500		

Exercise 8-9, Continued

Cash Distributions

Date—End of	Amount
Quarter 1	$ 30,000
Quarter 2	30,000
Quarter 3	30,000
Quarter 4	30,000
Quarter 1 next year	30,000
Total	$150,000
Present value @ 6%	$143,479

Note A:

Amount Invested	Number of Months Invested	Weighted Dollars
$100,000	3	$300,000
70,000	3	210,000
40,000	3	120,000
10,000	3	30,000
	12	$660,000
Weighted-average		$ 55,000
Interest @ 10%		5,500

Allocation of Profits Based on Alternative B

Assumed income level	$500,000	$560,000	$600,000
Salary	$ 96,000	$ 96,000	$ 96,000
Interest (Note B)	10,000	10,000	10,000
Bonus	50,000	56,000	60,000
Total	$156,000	$162,000	$166,000
Probability of occurrence	× 30%	× 50%	× 20%
Weighted outcome	$ 46,800	$ 81,000	$ 33,200
Combined most likely profit	$161,000		

Cash Distributions

Date—End of	Amount
Quarter 1	$ —
Quarter 2	24,000
Quarter 3	24,000
Quarter 4	24,000
Quarter 1 next year	60,000
Total	$132,000
Present value @ 6%	$124,556

Exercise 8-9, Concluded

Note B:

Amount Invested	Number of Months Invested	Weighted Dollars
$100,000	12	$1,200,000
	12	$1,200,000

Weighted-average	$ 100,000
Interest @ 10%.....	10,000

Allocation of Profits Based on Alternative C

Assumed income level.....	$500,000	$560,000	$600,000
Salary.....	$ 80,000	$ 80,000	$ 80,000
Share of net income (20%).....	100,000	112,000	120,000
Total.....	$180,000	$192,000	$200,000
Probability of occurrence.....	× 30%	× 50%	× 20%
Weighted outcome.....	$ 54,000	$ 96,000	$ 40,000
Combined most likely profit.....	$190,000		

Cash Distributions

Date—End of	Amount
Quarter 1.....	$ 20,000
Quarter 2.....	20,000
Quarter 3.....	20,000
Quarter 4.....	80,000
Quarter 1 next year.....	20,000
Total.....	$160,000
Present value @ 6%.....	$152,184

(2) Summary of above calculations:

	Alternative A	Alternative B	Alternative C
Combined most likely profit.....	$180,500	$161,000	$190,000
Net present value	143,479	124,556	152,184

An initial investment of $100,000 is required, regardless of which alternative is selected. Therefore, this investment is ignored for purposes of selecting an alternative. Also, all present value calculations include the cash flow in the first quarter of the next year. This was considered necessary in order to fully evaluate the irregular cash flow patterns of certain alternatives. Based on the above summary, it would appear that Alternative C is preferred. Not only does this generate the highest values, but it also allows the partner to retain similar amounts of capital in the partnership as do other alternatives. Therefore, potential growth of the partnership through retention of capital does not appear to be harmed by this alternative.

PROBLEMS

PROBLEM 8-1

This problem allows the students to recognize some of the practical consulting opportunities available to accountants. Certainly there is rarely one clear answer to the question of how a business should be organized. The important partnership characteristics that your client should be aware of might include the following:

(1) Ease of formation—Formation of a partnership does not require formal approval from the state.

(2) Unlimited liability—Providing this type of service to the elderly may expose the business to high levels of liability. To the extent liability insurance does not provide adequate coverage, the individual partners may be held personally liable. A corporate form of organization may be more appropriate in this regard.

(3) Double taxation—A partnership can avoid the double taxation of earnings. However, this can also be accomplished by an S corporation which can also limit the liability exposure addressed in number (2) above. If the business were a corporation, undistributed earnings would not currently be taxed at the individual shareholder level. This undistributed income would increase the value of a shareholder's investment in the corporation. If a shareholder were to sell this stock, a gain on the sale may qualify for special tax treatment as a capital gain and reduce or negate the negative aspects of double taxation. This is true if the capital gains tax rate is less than the individual investor's marginal tax rate at which the undistributed income would have been currently taxed if the business were a partnership.

(4) Passthrough of losses—Losses incurred in the earlier years of the business can be passed through to the individual partners. These losses may currently offset other taxable income recognized by the partner. If the business were organized as a corporation, these losses could not be passed through but could be carried forward to subsequent years and used to offset taxable income.

(5) Importance of a profit and loss agreement—Because your client will be active in the business and other investors will not be active, the profit and loss agreement should properly recognize the varying involvement of various partners. Allocating profits based in part on invested capital may be appropriate for the passive investor. The agreement should provide for a salary and/or bonus for the active partner.

(6) Importance of a buy/sell agreement—Because your client intends to liquidate his or her investment in several years, a well conceived buy/sell agreement should be established as part of the articles of partnership.

Problem 8-1, Concluded

(7) Retention of capital for expansion—Future expansion will be financed through the retention of earnings. Because partnership earnings are currently taxed at the individual partner level, partnerships often distribute a portion of the partnership income to individual partners in order to provide the cash flow necessary to pay income taxes. This would reduce the amount of capital that could be retained in the business for expansion purposes. If the business was organized as a corporation, the corporation as a separate distinct taxable entity would have to pay taxes on income. However, if the corporate tax rates were less than the individual investors' marginal tax rates, a corporation may be able to retain a greater amount of after-tax earnings than in the case of a partnership. Given the client's situation, the risk of an accumulated earnings tax on a corporate entity would seem low.

(8) Ability to attract additional capital for expansion—In theory, a partnership may have greater borrowing power than a corporation because creditors may have access to the net assets of individual partners. However, this may not be a critical factor because loans to corporations are often personally guaranteed by individual shareholders.

PROBLEM 8-2

Analysis of Sandburg's capital account:

January 1, 20X5, balance as of date of divorce		$ 180,000
Distributions to Sandburg:		
June 30	$(60,000)	
September 30	(65,000)	(125,000)
Distributions to Sandburg's spouse:		
August 31	$(40,000)	
February 28 (see Schedule B)	—	(40,000)
Allocation of partnership net income (see Schedule A)		397,414
December 31, 20X5, balance		$ 412,414
Distributions to Sandburg:		
June 30	$(125,000)	
September 30	—	(125,000)
Distributions to Sandburg's spouse:		
August 31	$ (50,000)	
February 28 (see Schedule B)	(85,500)	(135,500)
Allocation of partnership net income (see Schedule A)		370,803
December 31, 20X6, balance		$ 522,717

Calculation of total distributions due Sandburg's spouse as of February 28, 20X7:

February payment traceable to 20X6 (see Schedule B)	$ 62,500
50% of December 31, 20X6, capital balance [see above schedule ($522,717 – $62,500) × 50%]	230,108
Total distribution	$ 292,608

Note: The December 31, 20X6, balance is reduced by the claim against it by the partner's spouse.

Problem 8-2, Continued

Schedule A—Allocation of Partnership Profit

20X5 Profits:	Sandburg	Williams	Total
Salaries	$100,000	$125,000	$225,000
Bonus (see Note A)	68,182		68,182
Interest on capital (see Note B)	6,021	4,375	10,396
Subtotal	$174,203	$129,375	$303,578
Remaining profit	223,211	223,211	446,422
Total profit	$397,414	$352,586	$750,000

20X6 Profits:			
Salaries	$100,000	$125,000	$225,000
Bonus (see Note A)	63,636		63,636
Interest on capital (see Note B)	13,100	10,129	23,229
Subtotal	$176,736	$135,129	$311,865
Remaining profit	194,067	194,068	388,135
Total profit	$370,803	$329,197	$700,000

Note A:

Calculation of 20X5 Bonus	Calculation of 20X6 Bonus
Bonus = 10%($750,000 – Bonus)	Bonus = 10%($700,000 – Bonus)
110% Bonus = 10%($750,000)	110% Bonus = 10%($700,000)
110% Bonus = $75,000	110% Bonus = $70,000
Bonus = $68,182	Bonus = $63,636

Note B: Calculation of interest on capital

20X5 Weighted-Average Capital, Sandburg

Amount Invested	Number of Months Invested	Weighted Dollars
$180,000	6	$1,080,000
120,000	2	240,000
80,000	1	80,000
15,000	3	45,000
	12	$1,445,000
Weighted-average		$ 120,417
Interest @ 5%		6,021

20X5 Weighted-Average Capital, Williams

Amount Invested	Number of Months Invested	Weighted Dollars
$125,000	6	$ 750,000
95,000	3	285,000
5,000	3	15,000
		0
	12	$1,050,000
Weighted-average		$ 87,500
Interest @ 5%		4,375

Problem 8-2, Concluded

20X6 Weighted-Average Capital, Sandburg

Amount Invested	Number of Months Invested	Weighted Dollars
$412,414	2	$ 824,828
326,914	4	1,307,656
201,914	2	403,828
151,914	4	607,656
	12	$3,143,968
Weighted-average		$ 261,997
Interest @ 5%		13,100

20X6 Weighted-Average Capital, Williams

Amount Invested	Number of Months Invested	Weighted Dollars
$357,586	6	$2,145,516
57,586	3	172,758
37,586	3	112,758
	12	$2,431,032
Weighted-average		$ 202,586
Interest @ 5%		10,129

Schedule B—Distributions to Sandburg's Spouse

In 20X5, the first year of divorce, there was no February distribution.

In 20X6, there is a February distribution, traceable to the prior year as follows:

Base earnings traceable to 20X5:	
Net income	$750,000
Excluded salaries	(200,000)
Excluded bonus	(50,000)
Total	$500,000
Percent traceable to spouse	× 25%
Subtotal	$125,000
Interest on previous August distribution deficiency:	
$10,000 × 10% × 1/2 year	500
Prior payment	(40,000)
Amount due to spouse	$ 85,500

In 20X7, there is a February distribution, traceable to the prior year as follows:

Base earnings traceable to 20X6:	
Net income	$ 700,000
Excluded salaries	(200,000)
Excluded bonus	(50,000)
Total	$ 450,000
Percent traceable to spouse	× 25%
Subtotal	$ 112,500
Interest on previous August distribution deficiency:	
$0 × 10% × 1/2 year	—
Prior payment	(50,000)
Amount due to spouse	$ 62,500

PROBLEM 8-3

Summary Analysis of Profit Allocation Options

	Partners				
	Thomas	Purnell	Wiggins	Limited	Total
Allocation of profits without Wiggins... $280,000	$82,800	$	85,200$	0	$112,000
Allocation of profits with Wiggins..... 455,000	87,533		104,200	81,267	182,000
Benefit (disadvantage) associated with Wiggins..... 70,000..... $175,000	$ 4,733	$	19,000	$81,267	$

The admission of Wiggins does not allow either Thomas or Purnell to achieve their targeted allocation of profits. Is something better than nothing when it comes to admitting a partner?

Allocation of Profits or Losses Among Partners—**Without Wiggins**

Income (loss) to be allocated $280,000

	Partners				Cumulative
Component of Allocation	Thomas	Purnell	Wiggins	Limited	Total
Profit/loss percentage in remaining profits.....	60%	40%	n/a	n/a	
Allocation to limited partners.....				$112,000	$112,000
Salaries 212,000	$40,000	$60,000			
Bonus (Note A) 250,333	25,000		13,333		
Remaining profit (loss)..... 280,000	17,800	11,867			
Profit (loss) allocation.....	$82,800	$85,200	$	0	$112,000

Note A: Bonus to Thomas: 10% × ($1,450,000 – $1,200,000) = $25,000

Bonus to Purnell:
Bonus = 5%(Net Income – Bonus)
Bonus = 5%($280,000 – Bonus)
105% Bonus = $14,000
Bonus = $13,333

Problem 8-3, Concluded

Allocation of Profits or Losses Among Partners—**With Wiggins**

Income (loss) to be allocated $455,000*

*[$280,000 + ($700,000 × 40%) – ($700,000 × 15%)]

Component of Allocation	Partners: Thomas	Purnell	Wiggins	Limited	Cumulative Total
Profit/loss percentage in remaining profits.....	40%	40%	20%	n/a	
Allocation to limited partners.....				$182,000	$182,000
Salaries	$40,000	$	60,000	$40,000	
..... 322,000					
Bonus (Note B)	25,000	21,667		30,000	
398,667					
Remaining profit (loss).....	22,533		22,533	11,267	
455,000					
Profit (loss) allocation.....	$87,533	$104,200	$81,267	$182,000	

Note B: Bonus to Thomas: 10% ×($1,450,000 – $1,200,000) = $25,000

Bonus to Purnell:
Bonus = 5%(Net Income – Bonus)
Bonus = 5%($455,000 – Bonus)
105% Bonus = $22,750
Bonus = $21,667

Bonus to Wiggins: 15% × ($700,000 – $500,000) = $30,000

PROBLEM 8-4

Allocation of profits for the two years prior to the triggering event:

20X1 Allocation:

	Lawson	Schmidt	Jacobsen	Cumulative Total
Salaries	$60,000	$60,000	$40,000	$160,000
Bonuses*.....	14,000	7,000		181,000
Remaining profits.....	(6,000)	(6,000)	(8,000)	161,000
Total	$68,000	$61,000	$32,000	

*Bonus = 15%(Net Income – Bonus)
Bonus = 15%($161,000 – Bonus)
115% Bonus = $24,150
Bonus = $21,000

Problem 8-4, Continued

20X2 Allocation:

	Lawson	Schmidt	Jacobsen	Cumulative Total
Salaries	$60,000	$60,000	$40,000	$160,000
Bonuses*	18,000	9,000		187,000
Remaining profits.....	6,000	6,000	8,000	207,000
Total	$84,000	$75,000	$48,000	

*Bonus = 15%(Net Income – Bonus)
Bonus = 15%($207,000 – Bonus)
115% Bonus = $31,050
Bonus = $27,000

Average income allocated to Lawson for 20X1 and 20X2 equals $76,000 (average of $68,000 and $84,000).

Allocation of annual income anticipated during years 20X4 through 20X8.

	Lawson	Schmidt	Jacobsen	Cumulative Total
Salaries	$60,000	$60,000	$40,000	$160,000
Bonuses*	20,000	10,000		190,000
Remaining profits.....	12,000	12,000	16,000	230,000
Total	$92,000	$82,000	$56,000	

*Bonus = 15%(Net Income – Bonus)
Bonus = 15%($230,000 – Bonus)
115% Bonus = $34,500
Bonus = $30,000

Calculation of potential economic loss

If Lawson had not been injured and had retired as anticipated, the net present value of cash flows would be as follows:

	Cash Drawing	Retirement Payout	Total	Notes
July 1, 20X4	$28,000		$28,000	(A)
December 31, 20X4	28,000		28,000	
July 1, 20X5	30,667		30,667	(B)
December 31, 20X5	30,667		30,667	
July 1, 20X6	30,667		30,667	
December 31, 20X6	30,667		30,667	
July 1, 20X7	30,667		30,667	
December 31, 20X7	30,667		30,667	
July 1, 20X8	30,667		30,667	
December 31, 20X8	30,667		30,667	
July 1, 20X9	30,667	$69,000	99,667	(C)
December 31, 20X9	30,667	69,000	99,667	
July 1, 20Y1		69,000	69,000	
December 31, 20Y1		69,000	69,000	

Problem 8-4, Concluded

Note A: 40% of 20X3 net income of $210,000 divided three ways equals $28,000.
Note B: 40% of 20X4 net income of $230,000 divided three ways equals $30,667.
Note C: Average income allocated to Lawson for years 20X6 and 20X7 was $92,000. Three times this average is $276,000, and the resulting four equal installments are $69,000 each.

The present value of the above cash flows at December 31, 20X3, is:

Assumed discount rate	6%	8%	12%
Present value.....	$385,726	$332,210	$252,934

Assuming Lawson was injured and disabled, the net present value of cash flows would be as follows:

	Cash Drawing	Disability Payout	Total	Notes
July 1, 20X4	$28,000	$57,000	$85,000	(D) & (E)
December 31, 20X4	28,000	57,000	85,000	
July 1, 20X5		57,000	57,000	
December 31, 20X5		57,000	57,000	

Note D: 40% of 20X3 net income of $210,000 divided three ways equals $28,000.
Note E: Average income allocated to Lawson for years 20X1 and 20X2 was $76,000. Three times this average is $228,000, and the resulting four equal installments are $57,000 each.

The present value of the above cash flows at December 31, 20X3, is:

Assumed discount rate	6%	8%	12%
Present value.....	$248,846	$238,723	$220,450

Differences in present values given varying discount rates:

Assumed discount rate	6%	8%	12%
Present value assuming:			
No injury	$385,726	$332,210	$252,934
Injury	248,846	238,723	220,450
Difference in present value	$136,880	$ 93,487	$ 32,484

The above differences represent potential measures of economic loss.

Students should be encouraged to discuss the logic surrounding the use of a particular discount rate.

PROBLEM 8-5

(1) Allocation of profits necessary to provide Rodriquez with $60,000 of profits:

	Rodriquez	Monroe	Zito	Cumulative Total
Salaries	$40,000	$50,000		$ 90,000
Interest on capital		1,800	$11,700	103,500
Bonus to Monroe		7,500		111,000
Subtotal	$40,000	$59,300	$11,700	111,000
Remaining profits*	20,000	20,000	10,000	161,000
Total	$60,000	$79,300	$21,700	

*Rodriquez's share of remaining profits would have to be $20,000. The $20,000 represents 40% of the remaining profits of $50,000 ($20,000 divided by 40%). Therefore, $161,000 of partnership profit would have to be realized.

(2) From strictly a financial standpoint, the decision to withdraw capital in excess of the required minimum balance must consider two points. First, if capital were withdrawn, how would the return on those funds compare to the 9% pretax return offered by the partnership? Second, if capital is withdrawn, then remaining profits would increase in an amount equal to the interest that would have otherwise been allocated to the partner. In turn, the partner will then be able to receive the profit percentage on this extra amount of remaining profits. For example, consider Monroe. If he/she had not left $20,000 of excess capital in the partnership, he/she would not have received an allocation of $1,800 of interest. However, he/she would have received 40% of the resulting increased profit or $720 ($1,800 × 40%). If Monroe could have taken the excess capital out of the partnership and invested it at 9%, he/she would have received $1,800 of interest from alternative sources. In this example, Monroe would have experienced a total of $2,520 of income ($720 + $1,800) if he/she had withdrawn excess capital versus $1,800 of income if capital had been retained.

Students may address other issues related to the question of retaining capital. For example, if more capital were retained, such funds might be used to generate significantly increased profits. If the return on these reinvested funds exceeds those from other alternative sources, then partners would be well advised to reinvest capital. Once again, the decision revolves to a large extent around the question of alternative rates of return.

(3) In order for Rodriquez to not have to make an additional investment of capital, his total allocation of profit must not be negative, resulting in a reduction of capital. Therefore, his share of remaining profits cannot be a negative value in excess of $40,000. This suggests that remaining profits could not be more than a negative value of $100,000. If sales were less than $500,000, Monroe would not be credited for a bonus and allocated profits would be $103,500 before the allocation of remaining profits. If total net income were $3,500, the excess allocation of $100,000 would be allocated to Rodriquez to the extent of $40,000. In conclusion, the minimum net income would be $3,500.

PROBLEM 8-6

	Capital			Drawings		
	Lewis	Clark	Jefferson	Lewis	Clark	Jefferson
July 1, 20X5, capital balances	$ 50,000	$ 50,000	$ 50,000			
Allocation of 20X5 income (see Schedule A)	36,400	44,400	39,200			
20X5 drawings				$ 32,000	$ 32,000	$ 24,000
Close drawings	(32,000)	(32,000)	(24,000)	(32,000)	(32,000)	(24,000)
December 31, 20X5, balances	$ 54,400	$ 62,400	$ 65,200	$ —	$ —	$ —
Allocation of 20X6 income (see Schedule A)	89,756	110,396	99,848			
20X6 drawings				64,000	64,000	48,000
Close drawings	(64,000)	(64,000)	(48,000)	(64,000)	(64,000)	(48,000)
December 31, 20X6, balances	$ 80,156	$108,796	$117,048	$ —	$ —	$ —
Allocation of 20X7 income (see Schedule A)	124,394	154,686	140,920			
20X7 drawings				64,000	64,000	48,000
20X7 special drawing						50,000
Close drawings	(64,000)	(64,000)	(98,000)	(64,000)	(64,000)	(98,000)
December 31, 20X7, balances	$140,550	$199,482	$159,968	$ —	$ —	$ —
Adjustment of 20X7, net income	(26,250)	(32,250)	(31,500)			
December 31, 20X7, adjusted balance	$114,300	$167,232	$128,468			
December 31, 20X7, balance as reported	139,000	176,000	185,000			
Over-(under-) stated balance	$ 24,700	$ 8,768	$ 56,532			

Entry to correct accounting misstatements:

Lewis, Capital	24,700	
Clark, Capital	8,768	
Jefferson, Capital	56,532	
Accounts Receivable		65,000
Inventory		25,000

Problem 8-6, Continued

Schedule A—Allocation of Partnership Income

	Lewis	Clark	Jefferson	Cumulative Total
20X5 Allocation:				
Profit and loss percentage	35%	35%	30%	
Salary	$ 40,000	$ 40,000	$ 30,000	$110,000
Bonus (see Note A)		8,000	12,000	130,000
Interest on capital (see Note B)	2,000	2,000	2,000	136,000
Balance	(5,600)	(5,600)	(4,800)	120,000
Total	$ 36,400	$ 44,400	$ 39,200	
20X6 Allocation:				
Profit and loss percentage	35%	35%	30%	
Salary	$ 80,000	$ 80,000	$ 60,000	$220,000
Bonus (see Note A)		20,000	30,000	270,000
Interest on capital (see Note B)	4,352	4,992	5,216	284,560
Balance	5,404	5,404	4,632	300,000
Total	$ 89,756	$110,396	$ 99,848	
20X7 Allocation:				
Profit and loss percentage	35%	35%	30%	
Salary	$ 80,000	$ 80,000	$ 60,000	$220,000
Bonus (see Note A)		28,000	42,000	290,000
Interest on capital (see Note B)	6,412	8,704	6,364	311,480
Balance	37,982	37,982	32,556	420,000
Total	$124,394	$154,686	$140,920	
20X7 Allocation of adjusted new income:				
Profit and loss percentage	35%	35%	30%	
Salary	$ 80,000	$ 80,000	$ 60,000	$220,000
Bonus (see Note A)		22,000	33,000	275,000
Interest on capital (see Note B)	6,412	8,704	6,364	296,480
Balance	11,732	11,732	10,056	330,000
Total	$ 98,144	$122,436	$109,420	
Previously reported total	124,394	154,686	140,920	
Adjustment	$ (26,250)	$ (32,250)	$ (31,500)	

Problem 8-6, Concluded

Note A: Calculation of annual bonus

20X5 Bonus

Bonus = 20% x (Net Income – Bonus)
120% Bonus = 20% x $120,000
120% Bonus = $24,000
Bonus = $20,000

20X6 Bonus

Bonus = 20% x (Net Income – Bonus)
120% Bonus = 20% x $300,000
120% Bonus = $60,000
Bonus = $50,000

20X7 Bonus

Bonus = 20% x (Net Income – Bonus)
120% Bonus = 20% x $420,000
120% Bonus = $84,000
Bonus = $70,000

Adjusted 20X7 Bonus

Bonus = 20% x (Net Income – Bonus)
120% Bonus = 20% x $330,000
120% Bonus = $66,000
Bonus = $55,000

Note B: Determination of interest on capital

	Lewis	Clark	Jefferson
20X5 Weighted-average capital:			
No change throughout the year	—	—	—
Weighted-average capital	$50,000	$ 50,000	$ 50,000
Interest rate	× 8%	× 8%	× 8%
Allocated interest	$ 4,000	$ 4,000	$ 4,000
Times 1/2 year	1/2 year	1/2 year	1/2 year
1/2 year allocated interest	$ 2,000	$ 2,000	$ 2,000
20X6 Weighted-average capital:			
Beginning capital balance	$54,400	$ 62,400	$ 65,200
No change throughout the year	—	—	—
Weighted-average capital	$54,400	$ 62,400	$ 65,200
Interest rate	× 8%	× 8%	× 8%
Allocated interest	$ 4,352	$ 4,992	$ 5,216
20X6 Weighted-average capital:			
Beginning capital balance	$80,156	$108,796	$117,048
No change throughout the year for Lewis and Clark	—	—	—
Jefferson withdrew $50,000 on March 31 ($117,048 × 3/12 and $67,048 × 9/12)	—	—	—

Weighted-average capital	$80,156	$108,796	$ 79,548
Interest rate	× 8%	× 8%	× 8%
Allocated interest	$ 6,412	$ 8,704	$ 6,364

PROBLEM 8-7

Calculation of Adjustments to Income

	20X7	20X8
Amortization of business name	$(5,000)	$ (5,000)
Prepaid expenses, 20X7	3,000	(3,000)
Accrued expenses, 20X7	(2,000)	2,000
Fees billed in 20X8	8,400	(8,400)
Inventory overstatement		4,000
Accrued expenses, 20X8		(8,600)
Accrued income, 20X8		(3,000)
Adjustments to income	$ 4,400	$(22,000)

Schedule of Adjustments to Capital Balances

	Carson	Dowman	Evans
Unadjusted balances, December 31, 20X7	$25,000	$ 30,000	$ 28,000
Bonus to Carson on change in 20X7 income*	400		
Allocation of remaining adjustments to 20X7 income	1,200	1,200	1,600
Bonus to Carson on change in 20X8 income**	(2,000)		
Allocation of remaining adjustments to 20X8 income	(7,000)		(7,000)
(6,000)			
Correction of capital withdrawal	(5,000)		
Adjusted capital balances, December 31, 20X8	$12,600	$ 24,200	$ 23,600

*Bonus = 10%(I – Bonus)
Bonus = 10%($4,400 – Bonus)
110% Bonus = $440
Bonus = $400

**Bonus = 10%(I – Bonus)
Bonus = 10%($22,000 – Bonus)
110% Bonus = ($2,200)
Bonus = ($2,000)†

†The negative adjustment to income requires a charge against Carson's capital account.

PROBLEM 8-8

(1)

	Capital			Drawings		
	Harris	Piano	Tyler	Harris	Piano	Tyler
January 1, 20X5, capital balances	$ 80,000	$ 80,000	$ 80,000			
Allocation of 20X5 income (see Schedule A)	76,000	76,000	68,000			
20X5 drawings of salaries				$ 76,000	$ 76,000	$ 48,000
20X5 additional draws				—	—	—
Close drawings	(76,000)	(76,000)	(48,000)	(76,000)	(76,000)	(48,000)
December 31, 20X5, balances	$ 80,000	$ 80,000	$ 100,000	$ —	$ —	$ —
Allocation of 20X6 income (see Schedule A)	79,920	81,270	98,810			
20X6 drawings of salaries				76,000	76,000	48,000
20X6 additional draws				70,000	48,000	30,000
Close drawings	(146,000)	(124,000)	(78,000)	(146,000)	(124,000)	(78,000)
December 31, 20X6, balances	$ 13,920	$ 37,270	$ 120,810	$ —	$ —	$ —
Allocation of 20X7 income (see Schedule A)	76,333	77,019	116,647			
20X6 drawings of salaries				76,000	76,000	48,000
20X6 additional draws				10,000	20,000	100,000
Close drawings	(86,000)	(96,000)	(148,000)	(86,000)	(96,000)	(148,000)
December 31, 20X7, balances	$ 4,253	$ 18,289	$ 89,457	$ —	$ —	$ —
Allocation of 1st quarter 20X8 net income to Piano		28,000				
March 31, 20X8, Piano balance		$ 46,289				

(2) Distributions to Piano

Immediate distribution equal to 20% of annual salary	$ 15,200
125% of final capital balance (125% × $46,289) paid in six quarterly payments @ 6% interest	$ 10,156*
Number of payments	× 6
	$ 60,936
Total payout	$ 76,136

*PV = $46,289 × 1.25 = $57,861, n = 6, i = 6%/4 quarters

Problem 8-8, Continued

Schedule A—Allocation of Partnership Income

20X5 Allocation:	Harris	Piano	Tyler	Cumulative Total
Profit and loss percentage	35%	35%	30%	
Salary	$76,000	$76,000	$ 48,000	$200,000
Bonus (5% of net sales)			20,000	220,000
Interest on capital (see Note A)	—	—	—	220,000
Balance	—	—	—	220,000
Total	$76,000	$76,000	$ 68,000	
20X6 Allocation:				
Profit and loss percentage	35%	35%	30%	
Salary	$76,000	$76,000	$ 48,000	$200,000
Bonus (5% of net sales)			44,000	244,000
Interest on capital (see Note A)	1,050	2,400	4,350	251,800
Balance	2,870	2,870	2,460	260,000
Total	$79,920	$81,270	$ 98,810	
20X7 Allocation:				
Profit and loss percentage	35%	35%	30%	
Salary	$76,000	$76,000	$ 48,000	$200,000
Bonus (5% of net sales)			66,000	266,000
Interest on capital (see Note A)	333	1,019	2,647	270,000
Balance	—	—	—	270,000
Total	$76,333	$77,019	$116,647	

Note A: Determination of interest on capital

20X6 Weighted-Average Capital, Harris

Amount Invested	Number of Months Invested	Weighted Dollars
$80,000	1	$ 80,000
30,000	1	30,000
10,000	10	100,000
	12	$210,000
Weighted-average		$ 17,500
Interest @ 6%		1,050

20X6 Weighted-Average Capital, Piano

Amount Invested	Number of Months Invested	Weighted Dollars
$80,000	2	$160,000
32,000	10	320,000
	12	$480,000
Weighted-average		$ 40,000
Interest @ 6%		2,400

Problem 8-8, Concluded

20X6 Weighted-Average Capital, Tyler

Amount Invested	Number of Months Invested	Weighted Dollars
$100,000	1	$100,000
70,000	11	770,000
	12	$870,000

Weighted-average	$ 72,500
Interest @ 6%	4,350

20X7 Weighted-Average Capital, Harris

Amount Invested	Number of Months Invested	Weighted Dollars
$13,920	6	$ 83,520
3,920	6	23,520
	12	$107,040

Weighted-average	$ 8,920
Interest @ 6%	535

20X7 Weighted-Average Capital, Piano

Amount Invested	Number of Months Invested	Weighted Dollars
$37,270	6	$223,620
17,270	6	103,620
	12	$327,240

Weighted-average	$ 27,270
Interest @ 6%.....	1,636

20X7 Weighted-Average Capital, Tyler

Amount Invested	Number of Months Invested	Weighted Dollars
$120,810	6	$724,860
20,810	6	124,860
	12	$849,720

Weighted-average	$ 70,810
Interest @ 6%	4,249

Since the remaining profit available for allocation is only $4,000 ($270,000 – $266,000), the interest must be allocated proportionately among the partners.

	Interest	Percent of Total	Allocation of $4,000*
Harris	$ 535	8.34%	$ 333
Piano.....	1,636	25.49	1,019
Tyler.....	4,249	66.18	2,647
Total.....	$6,420	100.00%	$4,000

*The allocated amounts are rounded to the nearest whole dollar.

CHAPTER 9

UNDERSTANDING THE ISSUES

1. The fair value of the net assets reflects the appreciation and/or depreciation in the value of existing net assets and the value of net assets not presently recognized on the balance sheet of the existing partnership. The bonus method is conservative in that it does not recognize the appreciation of existing assets or the value of unrecognized assets. The underlying logic for this position is based on several factors. First, the suggested appreciation is difficult to objectively measure if not all the respective asset's value has been realized through an arm's-length transaction. For example, if you sell a 20% interest in a partnership, should that 20% transaction serve as the basis for suggesting the value of a 100% interest in the partnership? Second, the bonus method adheres to the long-standing convention of historical cost. Therefore, any value suggested but not actually received as consideration is not part of the historical cost of the transaction. Third, if unrealized appreciation were recognized and such values proved overstated, the resulting accounting for the loss in value might be inequitable for the partners. The bonus method avoids this potential inequity by electing not to recognize such appreciation.

2. The first step would be to determine the fair value of the net assets of the original partnership. This would include a valuation of existing net assets as well as the recognition that there may be other net values that are not captured on the financial statements. For example, there may be a contingent liability or goodwill that has not been recognized. Once the fair value of the net assets (e.g., $400,000) has been determined, this amount would represent the percentage interest in the new partnership to be retained by the original partners (e.g., 80%). Dividing the fair value by the percentage interest retained results in a suggested value of the new partnership entity ($400,000 divided by 80% = $500,000). The suggested value of the acquired interest is the difference between the value of the new partnership and that of the original partnership ($500,000 versus $400,000).

3. Several guidelines govern the process of liquidating a partnership. First, all assets and liabilities of the partnership should be identified, and the assets should be converted into a distributable form. Second, as assets become available for distribution, the order of priority as established by the Uniform Partnership Act should be followed. A practical exception to this priority involves the doctrine of right of offset. Third, every attempt should be made to secure net personal assets from those partners that have deficit capital balances. Finally, of critical importance is the guideline that distributions to parties should not be premature. That is to say, all distributions should be based on the conservative assumptions that remaining assets are worthless and that all partners are personally insolvent. This overly conservative position will ensure that no partner receives a payment
before he/she is entitled to it. The use of schedules of safe payments is a practical way to calculate appropriate and safe payments to partners.

4. A partner's maximum loss absorbable (MLA) is determined by dividing the sum of loans payable to a partner plus his/her capital balance by his/her respective interest in profits. The resulting value suggests how much loss in the value of partnership assets could be experienced before a partner developed a deficit capital balance. Obviously, the larger the MLA the more loss a partner could withstand and the stronger he/she is. Therefore, in a liquidation available distributions will first be made to the strongest partner. As such distributions are made, the respective partner's capital balance is reduced and his/her MLA is reduced. When two or more partners have equal MLAs, then they would share (according to their P&L ratios) in any available distributions.

EXERCISES

EXERCISE 9-1

(1)

Inventory	58,000	
Accounts Receivable		18,000
Warranty Obligations		10,000
Pearson, Capital		18,000
Murphy, Capital		12,000
To adjust book values to market values.		
Cash	84,000	
Goodwill	56,000	
Pearson, Capital		33,600
Murphy, Capital		22,400
Warner, Capital		84,000
To record admission of Warner and recognition of goodwill. If Warner contributes $84,000 for a 30% interest in capital, this suggests a total new partnership value of $280,000.		

(2) If the $56,000 of goodwill proved to be worthless, Warner would be charged 35% of $56,000, or $19,600. However, the real harm to Warner would be that it paid more to enter the partnership than it should have. If the goodwill did not exist, then the adjusted assets of the previous partners would have been $140,000 ($45,000 + $65,000 + $30,000), which represents 70% of a total partnership value of $200,000. In that case, Warner would have only paid $60,000 for a 30% interest in capital. Therefore, Warner would have paid an extra $24,000 ($84,000 versus $60,000) for the goodwill that proved to be worthless.

EXERCISE 9-2

Bonus Method

Baxter, Capital	6,000	
Murphy, Capital	4,000	
Allowance for Doubtful Accounts		10,000
Cash	25,000	
Equipment	30,000	
Land	35,000	
Tuttle, Capital		63,000
Baxter, Capital		16,200
Murphy, Capital		10,800

Goodwill Method

Baxter, Capital	6,000	
Murphy, Capital	4,000	
Allowance for Doubtful Accounts		10,000
Inventory	40,000	
Equipment	20,000	
Baxter, Capital		36,000
Murphy, Capital		24,000
Goodwill	30,000	
Baxter, Capital		18,000
Murphy, Capital		12,000
Cash	25,000	
Equipment	30,000	
Land	35,000	
Tuttle, Capital		90,000

EXERCISE 9-3

(1) Both methods recognize asset write-downs. The recognition of such write-downs would normally be recognized even outside of the area of accounting for partnerships. Current examples of write-downs relate to measuring inventory at lower of cost or market and recognizing the impairment of value on long-lived assets. However, only the goodwill method allows write-ups that would otherwise not be recognized by generally accepted accounting principles (GAAP).

(2) Under the bonus method, goodwill traceable to the original partnership is accounted for by crediting the original partners' capital balances. This credit, in substance, recognizes that their equity in the partnership is increased by virtue of the goodwill. However, these credits do not reflect the entire amount of the goodwill due to the fact that the bonus method does not allow for the write-up of assets.

(3) If a new incoming partner contributes net assets, both tangible and intangible, it is possible that his/her capital balance may be more than the value contributed. This would occur under the bonus method when intangibles, including goodwill, are traceable to the new incoming partner.

(4) Use of the goodwill method will always result in a greater amount of total partnership capital due to the recognition of write-ups. This would suggest that resulting interest on invested capital would also be higher under this method.

(5) A risk associated with the goodwill method is that the amortization and/or write-off of goodwill may occur using a profit/loss percentage that is different from an original partner's interest in profits and losses. For example, assume that goodwill traceable to the original partners, A and B, was allocated among them 40% to A and 60% to B. If the goodwill is subsequently written off and A's new interest in profits and losses is different from 40%, the resulting capital balance will be different than if the bonus method had originally been used. A similar result may occur when a new partner's interest in profits is different from his/her initial interest in capital.

EXERCISE 9-4

(1) Acquiring an interest directly from the partnership would have several advantages for the partnership entity. First, the partnership would receive the consideration being paid by the new partner and would therefore have the use of this additional working capital. If the goodwill method were used to record the admission of the new partner, the partnership could recognize the suggested appreciation on recorded assets and/or goodwill. This would increase the new partnership's net assets and more accurately reflect the fair value of the partnership. Finally, if the new partner acquired an interest directly from the partnership, Ross would continue to be a partner. This would result in continuity of management and ownership, which in turn could provide for more stability within the partnership.

(2) If Lane had purchased Ross's interest directly from Ross, Lane would have acquired a one-third interest in the capital of the partnership [$160,000 ÷ ($160,000 + $120,000 + $200,000)]. This one-third interest would have cost Lane $210,000, which suggests that the fair value of the previous partnership was $630,000 ($210,000 ÷ 1/3), of which $315,000 ($945,000 – $630,000) would have been contributed directly to the partnership by Lane.

Exercise 9-4, Concluded

(3) Land	30,000	
Ross, Capital		10,000
Gilmore, Capital		10,000
Bates, Capital		10,000
Goodwill	120,000	
Ross, Capital		40,000
Gilmore, Capital		40,000
Bates, Capital		40,000
Cash	210,000	
Lane, Capital		210,000

EXERCISE 9-5

Goodwill	96,000	
Accounts Receivable		21,000
Stegnitz, Capital		25,000
Hipki, Capital		25,000
Ergos, Capital		25,000

To record accounts receivable and goodwill adjustments suggested by the $105,000 paid to Ergos. The $25,000 ($105,000 versus $80,000) extra paid to Ergos suggests that net assets are understated by $75,000 ($25,000 = 1/3 of total net asset adjustment).

Ergos, Capital	105,000	
Cash		105,000

Cash	30,000	
Goodwill	12,500	
Olsen, Capital		42,500

To record admission of Olsen. Olsen should pay total consideration of $42,500. If the adjusted assets of the previous partnership (after Ergos) were $170,000, then this represents 80% of the new partnership or a total new partnership value of $212,500.

EXERCISE 9-6

(1) Distribution of personal assets per the UPA:

	Pfarr	Williams
Personal assets	$ 30,000	$ 22,000
Loan offset		(5,000)
Net personal assets	$ 30,000	$ 17,000
Personal liabilities	(15,000)	(17,000)
Further contribution toward capital deficit		
Balance	$ 15,000	$ 0

(2) Distribution of personal assets per the UPA without the right of offset:

	Pfarr	Williams
Personal assets	$ 30,000	$ 22,000
Loan offset		
Net personal assets	$ 30,000	$ 22,000
Personal liabilities	(15,000)	(21,000)
Further contribution toward capital deficit	0	(1,000)
Balance	$ 15,000	$ 0

Note: In entry (1) above, the right of offset resulted in a total contribution of $5,000 toward Williams' capital deficit. However, ignoring this doctrine in entry (2) resulted in only $1,000 being contributed toward Williams' capital deficit.

(3) Distribution of assets per common law with the right-of-offset doctrine:

	Pfarr	Williams
Personal assets	$ 30,000	$ 22,000
Loan offset		(5,000)
Net personal assets	$ 30,000	$ 17,000
Personal liabilities	(15,000)*	(11,900)*
Balance	$ 15,000	$ 5,100

*The personal assets are allocated as follows:

	Pfarr	Williams
Payable to personal creditors	$ 15,000	$ 21,000
Payable to partnership for debit capital balance	0	9,000
Balance	$ 15,000	$ 30,000

Percentage of net personal assets
available to personal creditors ..... 15/15 = 100% 21/30 = 70%

70% × $17,000
= $11,900

EXERCISE 9-7

Given the adjustment of selected assets to net realizable value, the result is net assets of $90,000. It is assumed that the net assets can be disposed of at book value. As a result of the adjustment, Crawford has developed a deficit of $15,000 (see Schedule A). If Crawford is personally solvent to the extent of the deficit, then it would contribute the $15,000 to the partnership and net assets would be liquidated and distributed. This would result in Crawford and Meyer receiving $0 and $73,000, respectively. However, if Crawford were personally insolvent, then Meyer and Jensen would have to absorb Crawford's deficit balance. If this were the case, the $15,000 deficit would be absorbed by Meyer and Jensen in the amount of $9,000 and $6,000, respectively. This would cause Meyer to have a capital balance of $64,000. I would advise Meyer to take Jensen's offer for several reasons. First, Crawford's personal solvency is at issue. Second, the Jensen offer is not significantly less than the $73,000 they would receive if Crawford were solvent. Finally, there are no guarantees that the net assets could actually net the amounts suggested. After all, the company is in a distressed condition, and there would likely be transaction costs associated with the liquidation.

Schedule A
Partial Liquidation

	Assets	Crawford	Meyer	Jensen
Profit and loss percentages		50%	30%	20%
Beginning balances	$ 230,000	$ 55,000	$115,000	$ 60,000
Adjust net assets	(140,000)	(70,000)	(42,000)	(28,000)
Balances.....	$ 90,000	$ (15,000)	$ 73,000	$ 32,000

EXERCISE 9-8

(1) Allocation of typical profits under the original partnership's agreement:

	A	B	C	Cumulative Total
Salaries	$30,000	$30,000	$40,000	$100,000
Bonus to A*	12,000			112,000
Remaining profits.....	10,000	4,000	6,000	132,000
Total	$52,000	$34,000	$46,000	

*Bonus = 10%(Net Income – Bonus)
110% Bonus = 10%(Net Income)
110% Bonus = $13,200
Bonus = $12,000

Exercise 9-8, Concluded

Allocation of new partnership profits necessary to satisfy Bower:

	A	B	C	D	Cumulative Total
Salaries	$30,000	$30,000	$40,000	$30,000	$130,000
Remaining profits*	42,000	14,000	42,000	42,000	270,000
Bonus to Dawson**				20,000	290,000
Total	$72,000	$44,000	$82,000	$92,000	

*In order for Bower to increase his allocation by $10,000, he would need to receive a $14,000 allocation based on the profit percentage. Therefore, the total amount of profit subject to this allocation would be $140,000 ($14,000 divided by 10%).

**If the cumulative total of income allocated before the bonus to Dawson is $270,000, then Dawson would be entitled to the bonus under the revised partnership agreement.

Bonus = $20,000

(2) The fair value of the net assets of the original partnership is $56,000 ($530,000 – $474,000). If Dawson acquires a 30% interest in the capital of the partnership, this would mean that the fair value traceable to the original partnership would represent 70% of the new partnership's total capital. Therefore, the total capital of the new partnership would be $80,000 ($56,000 ÷ 70%), and Dawson would have to pay $24,000 ($80,000 – $56,000) for a 30% interest in the new partnership.

(3) If the partnership were liquidated as described, Bower would receive additional cash of $88,200, determined as follows:

		Noncash		Offset Capital Balances		
	Cash	Assets	Liabilities	Arnold	Bower	Chambers
Beginning balances	$ 0	$ 680,000	$ 430,000	$ 50,000	$140,000	$ 60,000
Recognition of liability			4,000	(2,000)	(800)	(1,200)
Vehicle transfer		(20,000)		(2,500)	(16,000)	(1,500)
Sales of assets	515,000	(660,000)		(72,500)	(29,000)	(43,500)
Payment of liabilities	(434,000)		(434,000)			
Balances	$ 81,000	$ 0	$ 0	$ (27,000)	$ 94,200	$ 13,800
Contribution of assets	12,000			12,000		
Allocation of deficit				15,000	(6,000)	(9,000)
Balances	$ 93,000	$ 0	$ 0	$ 0	$ 88,200	$ 4,800

EXERCISE 9-9

Installment Liquidation Schedule

Date	Circumstance	Cash	Noncash Assets	Liabilities	Capital and Loan Balance Coleman	Moore	Ramsey
June 1, 20X7	Beginning balance	$ 8,000	$ 96,000	$ 63,000	$ 47,000	$ (9,000)	$ 3,000
June 15, 20X7	Sale of assets		(30,000)		(20,000)	(6,000)	(2,000) (2,000)
	Balance	$ 8,000	$ 66,000	$ 43,000	$ 41,000	$(11,000)	$ 1,000
July 1, 20X7	Contribution of personal assets	9,000				9,000	
	Balance	$ 17,000	$ 66,000	$ 43,000	$ 41,000	$ (2,000)	$ 1,000
July	Distribution of assets		(20,000)		(21,200)	600	600
	Balance	$ 17,000	$ 46,000	$ 43,000	$ 19,800	$ (1,400)	$ 1,600
July	Sale of assets	54,000	(40,000)		8,400	2,800	2,800
	Payment of liabilities	(43,000)		(43,000)			
	Balance	$ 28,000	$ 6,000	$ 0	$ 28,200	$ 1,400	$ 4,400
	Distribution to partners (see Schedule A)	(28,000)			(24,600)	(200)	(3,200)
	Balance	$ 0	$ 6,000	$ 0	$ 3,600	$ 1,200	$ 1,200

Schedule A
Schedule of Safe Payments

	Coleman	Moore	Ramsey	Total
Profit and loss percentages	60%	20%	20%	100%
	July Distribution			
Combined capital and loan balance before distribution	$28,200	$ 1,400	$ 4,400	$34,000
Maximum loss possible	(3,600)	(1,200)	(1,200)	(6,000)
Safe payments	$24,600	$ 200	$ 3,200	$28,000

EXERCISE 9-10

(1) None of the cash would be distributed to Partner A because the outside creditors' claims must be satisfied before any distributions to partners occur. Even after the sale, there is only $32,000 of cash available to service the liabilities of $35,000.

(2) Partner A would receive $5,000 determined as follows:

				Partner's Loan and Capital Balance		
	Cash	Noncash Assets	Liabilities	A	B	C
Beginning balance	$ 12,000	$ 180,000	$ 35,000	$ 60,000	$ 70,000	$ 27,000
Sale of assets	70,000	(60,000)		5,000	3,000	2,000
Payment of liabilities	(35,000)		(35,000)			
Balance	$ 47,000	$ 120,000	$ 0	$ 65,000	$ 73,000	$ 29,000
Assume assets are worthless		(120,000)		(60,000)	(36,000)	(24,000)
Balance	$ 47,000	$ 0	$ 0	$ 5,000	$ 37,000	$ 5,000

(3) If Partner B received $27,000 from the first safe payment, then he/she would need to receive another $52,000 to reach the target of $79,000 in total. If his/her capital balance after the first sale of assets and the distribution of $27,000 is $37,000 ($64,000 – $27,000), then his/her share of a gain on the sale of the remaining assets would have to bring the capital balance to the desired amount of $52,000. The necessary share of the gain is $15,000 ($52,000 – $37,000), which represents 30% of a total gain of $50,000. Therefore, the remaining assets would have to sell for $160,000 in order to produce a gain of $50,000.

				Partner's Loan and Capital Balance		
	Cash	Noncash Assets	Liabilities	A	B	C
Beginning balance	$ 12,000	$ 180,000	$ 35,000	$ 60,000	$ 70,000	$ 27,000
Sale of assets	50,000	(70,000)		(10,000)	(6,000)	(4,000)
Payment of liabilities	(35,000)		(35,000)			
Balance	$ 27,000	$ 110,000	$ 0	$ 50,000	$ 64,000	$ 23,000
Assume assets are worthless		(110,000)		(55,000)	(33,000)	(22,000)
Balance	$ 27,000	$ 0	$ 0	$ (5,000)	$ 31,000	$ 1,000
Absorb deficit balance				5,000	(3,000)	(2,000)
Absorb deficit balance					(1,000)	1,000
Balance	$ 27,000	$ 0	$ 0	$ 0	$ 27,000	$ 0

EXERCISE 9-11

	Capital and Loan Balance			Maximum Loss Absorbable		
	Delaney	Gray	Sullivan	Delaney	Gray	Sullivan
Profit and loss percentages	30%	30%	40%			
Capital and loan balance	$ 33,000	$ 33,000	$24,000			
Allocation of expected liquidation expenses.....	(3,000)	(3,000)	(4,000)			
Balance	$ 30,000	$ 30,000	$20,000			
Maximum loss absorbable (MLA) $50,000					$100,000	$100,000
Amount needed to reduce highest-ranked MLA to next highest-ranked MLA				(50,000)		(50,000)
New MLA $50,000				$ 50,000		$ 50,000
Reduction in capital needed to achieve reduction in MLA....	(15,000)	(15,000)				
New capital balance.....	$ 15,000	$ 15,000	$20,000			

All above distributions should be in profit and loss ratios.

	Payable to				
Amount	Liabilities	Estimated Liquidation Expenses	Delaney	Gray	Sullivan
First $20,000.....	$20,000				
Next $10,000		$10,000			
Next $30,000			50%	50%	
Any additional payments.....			30	30	40%

PROBLEMS

PROBLEM 9-1

	Capital Balances					
	Carlton	Weber	Stansbury	Laidlaw	Wilson	Total
Balances as of December 31, 20X4	$ 120,000	$ 70,000	$ 80,000			$270,000
Withdrawal of Stansbury			(80,000)	$ 80,000		
Allocation of 20X5 income (see Schedule A)	100,000	87,500		112,500		
Quarterly withdrawals in 20X5	(120,000)		(90,000)		(90,000)	
Balances as of December 31, 20X5	$ 100,000	$ 67,500	$ 0	$102,500		270,000
Withdrawal of bonus amount		(12,500)		(37,500)		
Allocation of first six months of 20X6 income (see Schedule A)	40,000	35,000		45,000		
Quarterly withdrawals thru June 30	(60,000)		(45,000)		(45,000)	
Balances as of June 30, 20X6	$ 80,000	$ 45,000	$ 0	$ 65,000		190,000
Acquisition of Laidlaw's interest	(8,000)	(6,000)		(65,000)		
Allocation of second six months of 20X6 income (see Schedule A)	36,500	36,500				
Quarterly withdrawals thru December 31	(20,000)		(20,000)			
Balances as of December 31, 20X6	$ 88,500	$ 55,500	$ 0	$ 0		144,000
Admit Wilson to partnership ($144,000/60% = $240,000)					$ 96,000	
Allocation of 20X7 income (see Schedule A)	140,000	140,000			140,000	
Quarterly withdrawals in 20X7	(120,000)		(120,000)			(120,000)
Balances as of December 31, 20X7	$ 108,500	$ 75,500	$ 0	$ 0	$ 116,000	300,000
Allocation of first six months of 20X8 income (see Schedule A)	85,000	85,000			85,000	
Quarterly withdrawals thru June 30	(60,000)		(60,000)			(60,000)
Balances as of June 30, 20X8	$ 133,500	$ 100,500	$ 0	$ 0	$ 141,000	375,000
Withdrawal of Carlton:						
Recognition of goodwill	26,500	26,500			26,500	
Payment of $160,000	(160,000)					
Balances as of July 1, 20X8	$ 0	$ 127,000	$ 0	$ 0	$ 167,500	294,500

Problem 9-1, Concluded

Schedule A—Allocation of Net Income

		Carlton	Weber	Laidlaw	Wilson	Total
20X5	Salary	$120,000	$ 90,000	$ 90,000		$300,000
	Bonus (Note A)		12,500	37,500		50,000
	Subtotal	$120,000	$102,500	$127,500		$350,000
	Remaining profit	(20,000)	(15,000)	(15,000)		(50,000)
	Total	$100,000	$ 87,500	$112,500		$300,000
1st 3 mos.						
20X6	Salary	$ 60,000	$ 45,000	$ 45,000		$150,000
	Bonus (Note B)		5,000	15,000		20,000
	Subtotal	$ 60,000	$ 50,000	$ 60,000		$170,000
	Remaining profit	(20,000)	(15,000)	(15,000)		(50,000)
	Total	$ 40,000	$ 35,000	$ 45,000		$120,000
2nd 6 mos.						
20X6	Per profit and loss percentages	$ 36,500	$ 36,500			$ 73,000
20X7	Per profit and loss percentages	140,000	140,000		$140,000	420,000
1st 6 mos.						
20X8	Per profit and loss percentages	85,000	85,000		85,000	255,000

Note A:
Bonus = 20%(Net Income – Bonus)
Bonus = 20%($300,000 – Bonus)
120% Bonus = $60,000
Bonus = $50,000

Note B:
Bonus = 20%(Net Income – Bonus)
Bonus = 20%($120,000 – Bonus)
120% Bonus = $24,000
Bonus = $20,000

PROBLEM 9-2

(1) The net assets of the partnership have a book value of $200,000 and a fair value of $108,000 ($437,000 less $329,000). The decline in value of $92,000 ($200,000 vs. $108,000) would be allocated to Rowe in the amount of $36,800 (40% of $92,000). Therefore, Rowe's adjusted capital balance at fair value would be $43,200 ($80,000 less $36,800) or $21,600 for a half interest.

(2) The fair value of the original partnership is $108,000. This amount would represent 60% of the new partnership's total capital of $180,000 ($108,000 divided by 60%). Therefore, a new partner would have to convey assets with a value of $72,000 ($180,000 less $108,000).

(3) Rowe's capital = $80,000 – $36,800 – $2,880 = $40,320 based on the following entries:

Capital, Kravitz	55,200	
Capital, Rowe	36,800	
Net Assets		92,000
To recognize write-down of net assets.		

Cash	60,000	
Capital, Kravitz	4,320	
Capital, Rowe	2,880	
Capital, New Partner		67,200
To recognize investment of new partner.		

(4) Rowe's capital = $80,000 – $36,800 = $43,200.

If the goodwill method were employed, the difference between the new partner's cash contribution of $60,000 and a suggested contribution of $72,000 [see item (2) above] would be recognized as goodwill traceable to the new partner.

(5) New partner's capital = 30% × ($108,000 + $55,000) = $48,900.

(6) Tax basis of the new partner is determined as follows:

Tax basis of assets contributed	$140,000
Tax basis of other partners' liabilities assumed (40% × $323,000)	129,200
Tax basis of liabilities assumed by other partners (60% × $70,000)	(42,000)
	$227,200

PROBLEM 9-3

(1) The previous partnership has a fair value as follows:

Value of recorded net assets	$268,000
Value of goodwill	40,000
Total fair value	$308,000

The fair value of $308,000 would represent 70% of the new partnership's capital. Therefore, the new partnership would have total capital of $440,000. The amount of Carver's cash contribution can be calculated as follows:

Capital of new partnership	$440,000
Value of previous partnership	308,000
Total contribution needed from Carver	$132,000
Fair value of recorded assets contributed	(90,000)
Fair value of intangible contributed	(20,000)
Necessary cash contribution	$ 22,000

(2) If Carver's intangibles prove worthless, each of the partners would be allocated one-third of the write-off, or $6,667 ($20,000 × 1/3). Therefore, Carver, who originally received a capital credit for the entire $20,000 of intangibles, would lose only $6,667 of capital if it proved to be worthless. The advantage of $13,333 ($20,000 – $6,667) to Carver is a disadvantage to Andrews and Block in the amount of $6,667 and $6,667 respectively.

If the intangibles traceable to the previous partnership prove worthless, each of the partners would be allocated one-third of the write-off, or $13,333 ($40,000 × 1/3). Andrews's capital was originally increased by $16,000 (40% × $40,000) for the goodwill, yet he/she is experiencing only a $13,333 decrease in capital as a result of the write-off. Block also is not being disadvantaged by the write-off because he/she originally had a capital increase of $24,000 (60% × $40,000) when goodwill was recognized. Carver is the only partner being disadvantaged because he received no capital increase when the goodwill was recognized, yet he experienced a $13,333 capital decrease upon write-off of the goodwill.

(3) If the intangibles have value, they will take the form of future earnings in excess of some otherwise expected level. Therefore, granting the new partner a favorable interest (perhaps via a bonus or progressive P&L ratio) in these excessive earnings would recognize the value of the intangibles and increase the partner's capital balance. In effect, this approach recognizes the value of goodwill only when it is realized through excessive earnings.

PROBLEM 9-4

(1)

	Capital Balances				
	Davis	Murray	Clay	Rayburn	Total
Balances as of December 31, 20X3	$ 50,000	$ 80,000	$ 70,000		
Distribution of Clay's bonus (see Schedule A)			(36,000)		
Distribution of other income (see Schedule A)	(38,400)	(38,400)	(38,400)		
Allocation of 20X4 income (see Schedule A)	108,000	108,000	84,000		
Quarterly distributions	(100,000)		(100,000)		(70,000)
Balances as of December 31, 20X4	$ 19,600	$ 49,600	$ 9,600		$ 78,800
Admission of Rayburn (see Schedule B)	(3,300)	(3,300)	(3,300)	$ 68,900	
Distribution of Clay's bonus (see Schedule A)			(6,000)		
Distribution of other income (see Schedule A)	(6,400)	(6,400)	(6,400)		
Allocation of 20X5 income (see Schedule A)	50,000	50,000	36,100	5,900	
Subtotal.....	$ 59,900	$ 89,900	$ 30,000	$ 74,800	
Withdrawal of Davis	(59,900)	4,500	4,500	1,500	
Balances as of December 31, 20X5	$ 0	$ 94,400	$ 34,500	$ 76,300	205,200
Distribution of Clay's bonus (see Schedule A)			(1,100)		
Distribution of other income (see Schedule A.....	0	0	0	0	
Allocation of 20X6 income (see Schedule A.....	0	40,948	40,948	28,104	
Balances as of June 30, 20X6.....	$ 0	$ 135,348	$ 74,348	$104,404	314,100

Problem 9-4, Continued

Schedule A
Allocation of Profits and Losses

20X3 Income	Davis	Murray	Clay	Rayburn	Cumulative Total
Profit and loss percentages...	33.3%	33.3%	33.3%		
Salaries.....	$100,000	$100,000	$ 70,000		$270,000
Bonus (see Note A).....			36,000		306,000
Remaining profits.....	48,000	48,000	48,000		450,000
Total.....	$148,000	$148,000	$154,000		
20X4 Income					
Salaries.....	$100,000	$100,000	$ 70,000		270,000
Bonus (see Note B).....			6,000		276,000
Remaining profits.....	8,000	8,000	8,000		300,000
Total.....	$108,000	$108,000	$ 84,000		
20X5 Income					
Salaries.....	$50,000	$50,000	$35,000	$ 0	135,000
Interest.....				5,900	140,900
Bonus (see Note C)			1,100		142,000
Remaining profits.....	0	0	0		142,000
Total.....	$50,000	$50,000	$36,100	$ 5,900	
20X6 Income					
Salaries.....	$ 0	$ 0	$ 0	$ 0	0
Interest(10% × $76,300).....				7,630	7,630
Remaining profits.....	0	40,948	40,948	20,474	110,000
Total.....	$ 0	$40,948	$40,948	$28,104	

Note A: Bonus = 20%(Net Income – Salaries)
Bonus = 20%($450,000 – $270,000)
Bonus = 20%($180,000)
Bonus = $36,000

Note B: Bonus = 20%(Net Income – Salaries)
Bonus = 20%($300,000 – $270,000)
Bonus = 20%($30,000)
Bonus = $6,000

Note C: Bonus = 20%(Net Income – Salaries)
Bonus = 20%($142,000 – $135,000)
Bonus = 20%($7,000)
Bonus = $1,400 but limited to available net income

Problem 9-4, Concluded

Schedule B
Changes in Partnership Interests

Admission of Rayburn:	
Total capital of previous partners	$ 78,800
Investment of Rayburn	59,000
Total capital of new partnership	$137,800
50% interest allocated to Rayburn	68,900
Balance allocated to previous partners	$ 68,900
Investment of Rayburn	59,000
Balance of negative bonus to previous partners	$ 9,900

(2) Distribution of Available Cash on September 15, 20X6

	Cash	Liabilities	Murray	Clay	Rayburn
Available cash (see Schedule C)	$ 277,000				
Payment of liabilities	(84,000)	$84,000			
Payment to partners (see Note D)	(183,000)			$112,908	$1,908
$68,184					
Total	$ 10,000	$84,000	$112,908	$1,908	$68,184

Schedule C
Partial Liquidation Schedule

	Cash	Noncash Assets	Liabilities	Loan from Murray	Capital Balances Murray	Clay	Rayburn
Balances at June 30, 20X6	$ 15,000	$433,100	$84,000	$50,000	$135,348	$74,348	
$104,404							
August 1 Sale of assets	180,000	(220,000)			(16,000)	(16,000)	
(8,000)							
September 1 Sale of assets	82,000		(70,000)			4,800	
4,800	2,400						
Balances	$277,000	$143,100	$84,000	$50,000	$124,148	$63,148	$
98,804							

Note D: Schedule of Safe Payments

	Murray	Clay	Rayburn	Total
Profit and loss percentages	40%	40%	20%	100%
Combined capital and loan balances	$174,148	$ 63,148	$ 98,804	$
336,100				
Estimated cash reserve	(4,000)	(4,000)	(2,000)	(10,000)
Maximum loss possible	(57,240)	(57,240)	(28,620)	
(143,100)				
Safe payment	$112,908	$ 1,908	$ 68,184	$
183,000				

PROBLEM 9-5

Admission of new partner:

(1) Bonus method: Total capital in the new partnership equals $160,000 ($60,000 + $40,000 + $60,000). Nelson's 30% interest equals $48,000.

Cash	60,000	
Nelson, Capital		48,000
Buckner, Capital		6,000
Pressey, Capital		6,000

(2) Goodwill method: Nelson's $30,000 investment for a 20% interest implies that the capital of the new partnership equals $150,000 ($30,000 ÷ 20%). The $150,000 less the $130,000 book value represents $20,000 of goodwill to be recognized.

Cash	30,000	
Goodwill	20,000	
Nelson, Capital		30,000
Buckner, Capital		10,000
Pressey, Capital		10,000

(3) Because Nelson's acquisition of a 30% interest in the partnership was from a partner, the consideration is not used to suggest the imputed fair value of the partnership. The partnership merely records the transfer of Pressey's capital interest to Nelson's capital account.

Pressey, Capital, 50% × $60,000	30,000	
Nelson, Capital		30,000

Withdrawal of previous partner:

(4) Bonus method: The payment of $48,000 to Buckner for the remaining partner's 40% interest in capital indicates a bonus of $8,000 ($48,000 – $40,000).

Buckner, Capital	40,000	
Pressey, Capital	8,000	
Cash		48,000

(5) Goodwill method: The payment of $25,000 to Buckner for the remaining partner's 20% interest in capital implies that the fair value of the partnership is $125,000 ($25,000 ÷ 20%). The goodwill traceable to the withdrawing partner is $5,000 ($25,000 – $20,000).

Goodwill	5,000	
Buckner, Capital		5,000
Buckner, Capital	25,000	
Cash		25,000

Problem 9-5, Concluded

(6) Goodwill method: The payment of $39,000 to Buckner for a 30% interest in capital suggests that $9,000 is being paid for goodwill. This amount represents 75% of Buckner's 50% interest (the profit and loss percentage) in the total goodwill. If 75% of Buckner's 50% interest in goodwill is $9,000, then his/her half of total goodwill is $12,000.

Goodwill	24,000	
Buckner, Capital		12,000
Pressey, Capital		12,000
Buckner, Capital	39,000	
Cash		39,000

PROBLEM 9-6

Part I

	Capital Balance			Maximum Loss Absorbable		
	Aikens	Barnes	Clinton	Aikens	Barnes	Clinton
Profit and loss percentages	50%	30%	20%			
Capital and loan balance	$55,000	$45,000	$24,000			
Maximum loss absorbable (MLA)				$110,000	$150,000	$120,000
Amount needed to reduce highest-ranked MLA to next highest MLA					(30,000)	
New MLA				$110,000	$120,000	$120,000
Reduction in capital needed to achieve reduction in MLA		(9,000)				
New capital balance	$55,000	$36,000	$24,000			
Amount needed to reduce highest-ranked MLA to next highest-ranked MLA					(10,000)	
(10,000)						
New MLA				$110,000	$110,000	$110,000
Reduction in capital needed to achieve reduction in MLA		(3,000)	(2,000)			
New capital balance	$55,000	$33,000	$22,000			

	Payable to			
Amount	Liabilities	Aikens	Barnes	Clinton
First $17,000	$17,000			
Next $9,000			100%	
Next $5,000			60	40%
Any additional payments		50%	30	20

Problem 9-6, Concluded

Part II

Schedule of Cash Payments
July–September, 20X7

	Total	Creditors	Aikens	Barnes	Clinton
July:					
100% × $17,000		$17,000			
100% × $6,500 (Note A)				$ 6,500	
Total for July	$ 23,500	$17,000		$ 6,500	
August:					
100% × $2,500				$ 2,500	
100% × $1,500*				1,500	
Total for August	4,000			$ 4,000	
September:					
100% × $1,500				$ 1,500	
5/8 × $32,000**			$20,000		
3/8 × $32,000**				12,000	
50% × $43,000			21,500		
30% × $43,000				12,900	
20% × $43,000					$8,600
Total for September	76,500		$41,500	$26,400	$8,600
Total for period	$104,000	$17,000	$41,500	$36,900	$8,600

*Because the next $5,000 of cash was to be divided between Barnes and Clinton in a 60% to 40% ratio, Barnes received $3,000 in cash and Clinton received $2,000 interest in the equipment:

60% × $5,000	=	$3,000 cash to Barnes
40% × $5,000	=	2,000 interest in equipment to Clinton
Total		$5,000

Because only $1,500 additional cash is being distributed, Barnes gets 100% of the $1,500.

**Clinton's remaining $8,000 interest in the equipment was equivalent to

a total cash distribution of $8,000 ÷ 20%	$40,000
Equipment to Clinton in lieu of cash	8,000
Cash to be distributed to Aikens and Barnes	$32,000

Ratio of distribution between Aikens and Barnes is 50:30, or 5/8 to 3/8.

Note A: Cash available for distribution is the beginning balance of $6,000 plus the July net cash inflows of $25,500 less the ending cash balance of $8,000. Of this total cash available of $23,500, Barnes would be the only partner to receive a distribution.

PROBLEM 9-7

Installment Liquidation Schedule

	Cash	Other Assets	Liabilities	Capital and Loan Balance Barker	Dunton	Jacoby
Beginning balance	$ (2,000)	$141,000	$ 82,000	$ 66,000	$ 6,000	$ (15,000)
First month:						
Sale of assets	26,000	(32,000)		(3,000)	(1,800)	(1,200)
Liquidation expenses	(4,000)			(2,000)	(1,200)	(800)
Balance	$ 20,000	$109,000	$ 82,000	$ 61,000	$ 3,000	$ (17,000)
Contribution	17,000					17,000
Pay liabilities	(37,000)		(37,000)			
Balance	$ 0	$109,000	$ 45,000	$ 61,000	$ 3,000	$ 0
Second month:						
Sale of assets	30,000	(68,000)		(19,000)	(11,400)	(7,600)
Liquidation expenses	(5,000)			(2,500)	(1,500)	(1,000)
Balance	$ 25,000	$ 41,000	$ 45,000	$ 39,500	$ (9,900)	$ (8,600)
Contribution	4,000					4,000
Pay liabilities	(29,000)		(29,000)			
Balance	$ 0	$ 41,000	$ 16,000	$ 39,500	$ (9,900)	$ (4,600)
Third month:						
Sale of assets	11,000	(41,000)		(15,000)	(9,000)	(6,000)
Balance	$ 11,000	$ 0	$ 16,000	$ 24,500	$ (18,900)	$ (10,600)
Pay liabilities	(11,000)		(11,000)			
Balance	$ 0	$ 0	$ 5,000	$ 24,500	$ (18,900)	$ (10,600)

Note: The problem allows for a discussion of how unsatisfied partnership and personal creditors would proceed after a partnership has been liquidated.

PROBLEM 9-8

(1) Installment Liquidation Schedule

Event/Circumstance	Cash	Noncash Assets	Liabilities	Partner's Loan and Capital Balance Dvorak	Kelsen	Morgan
Profit and loss percentages				30.00%	30.00%	40.00%
Beginning balances	$ 15,000	$ 722,000	$ 613,000	$ 20,000	$ 87,000	$ 17,000
Liquidate receivables and inventory	90,000	(130,000)		(12,000)	(12,000)	(16,000)
Refund of prepaids	10,000	(12,000)		(600)	(600)	(800)
Balances	$115,000	$ 580,000	$ 613,000	$ 7,400	$ 74,400	$ 200
Payoff of accounts payable	(80,000)		(80,000)			
Balances	$ 35,000	$ 580,000	$ 533,000	$ 7,400	$ 74,400	$ 200
Distribution of assets to partners		(25,000)		(9,500)	(1,500)	(14,000)
Sale of office equipment/vehicles	28,000	(35,000)		(2,100)	(2,100)	(2,800)
Settle contingent liability	(43,000)		(83,000)	12,000	12,000	16,000
Balances	$ 20,000	$ 520,000	$ 450,000	$ 7,800	$ 82,800	$ (600)
Payment to partners (see Schedule A)	(18,000)				(18,000)	
Balances	$ 2,000	$ 520,000	$ 450,000	$ 7,800	$ 64,800	$ (600)
Sale of furniture & fixtures	120,000	(150,000)		(9,000)	(9,000)	(12,000)
Collection agency proceeds	5,000	(20,000)		(4,500)	(4,500)	(6,000)
Sale of home and payoff of loan	(80,000)	(350,000)	(450,000)	6,000		6,000 8,000
Balances	$ 47,000	$ 0	$ 0	$ 300	$ 57,300	$ (10,600)
Contribution of deficit partners	10,000					10,000
Allocation of deficit balances				(300)	(300)	600
Final payment to partners	(57,000)				(57,000)	
Balances	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0

Schedule A
Schedule of Safe Payments

	Dvorak	Kelsen	Morgan
Profit and loss percentages	30%	30%	40%
Combined capital and loan balances	$ 7,800	$ 82,800	$ (600)

Cash retained/expenses anticipated	(600)	(600)	(800)
Maximum loss possible	(21,000)	(21,000)	(28,000)
Balances	$ (13,800)	$ 61,200	$ (29,400)
Allocation of deficits	13,800	(43,200)	29,400
Safe payments	$ 0	$ 18,000	$ 0

(2) The distribution of the equipment and vehicles was not safe. First of all, distributions should not be made unless all liabilities have been settled. Furthermore, if a schedule of safe payments had been made at that time, the partners would not have had adequate capital balances to absorb potential losses.

(3) Solvent partners will have a legal claim against those partners who are not able to satisfy their deficit balance. The ultimate collectibility of these amounts is dependent upon the insolvent partner(s) subsequently becoming solvent.

PROBLEM 9-9

King Alternative #1—Liquidate now:

Based on the schedule below, King would receive a total of $45,000 represented by its loan balance of $20,000 and its capital balance of $25,000.

	Net Assets Excluding Partner Loans	Partner Loans	Capital Balances Through Year-End 20X5 Skeeba	Tank	King
Profit and loss percentages.....			40%	30%	30%
December 31, 20X4, balances....	$250,000	$40,000	$ 80,000	$ 90,000	$ 40,000
Adjust to liquidating value	(50,000)		(20,000)	(15,000)	(15,000)
Net liquidation values.....	$200,000	$40,000	$ 60,000	$ 75,000	$ 25,000

King Alternative #2—Sell interest to Tank for $60,000 plus collect loan of $20,000 for a total of $80,000.

King Alternative #3—Continue through 20X5 and then liquidate:

Based on the schedule below, King would receive a total of $75,250 represented by its loan balance of $20,000 and its capital balance of $55,250.

	Net Assets Excluding Partner Loans	Partner Loans	Capital Balances Through Year-End 20X5 Skeeba	Tank	King
Profit and loss percentages.....			40%	30%	30%
December 31, 20X4, balances....	$250,000	$40,000	$ 80,000	$ 90,000	$ 40,000
Operating income.....	30,000		12,000	9,000	9,000
Capital contribution	30,000		10,000	10,000	10,000
Nonrecurring income.....	40,000		16,000	12,000	12,000
Subtotal.....	$350,000	$40,000	$118,000	$121,000	$ 71,000
Adjust to liquidating value	(52,500)		(21,000)	(15,750)	(15,750)
Net liquidation values.....	$297,500	$40,000	$ 97,000	$105,250	$ 55,250

In conclusion, it would appear that King should accept Tank's offer to purchase its interest. This provides King with the highest present value and also avoids the uncertainties associated with future operating results. However, this assumes that King will collect its loan from the partnership upon leaving the partnership. The possibility of this not happening should be considered.

PROBLEM 9-10

Installment Liquidation Schedule

Event/Circumstance	Cash	Noncash Assets	Liabilities	Partner's Loan and Capital Balance Schmidt	Janis	Glomski
Profit and loss percentages				30%	35%	35%
Beginning balance	$ 25,000	$ 404,000	$ 274,000	$ 85,000	$ 47,000	$ 23,000
Estimated liquidation expense	(10,000)			(3,000)	(3,500)	(3,500)
Projected sale of assets	272,000	(404,000)		(39,600)	(46,200)	(46,200)
Projected settlement of liabilities	(264,000)		(274,000)	3,000	3,500	3,500
Balance	$ 23,000	$ 0	$ 0	$ 45,400	$ 800	$(23,200)
Estimated capital contribution	10,000					10,000
Balance	$ 33,000	$ 0	$ 0	$ 45,400	$ 800	$(13,200)
Absorption of partner's deficit				(6,092)	(7,108)	13,200
Balance	$ 33,000	$ 0	$ 0	$ 39,308	$ (6,308)	$ 0
Absorption of partner's deficit				(6,308)	6,308	
Balance	$ 33,000	$ 0	$ 0	$ 33,000	$ 0	$ 0

Memo to Schmidt

Date: March 2, 20X8
To: R. J. Schmidt
From: William James Taylor, CPA, CVA, Ph.D.
Re: Contemplated liquidation/purchase of partnership

The enclosed installment liquidation schedule shows the effect on partnership net assets and capital balances if a liquidation of the company were to occur. The estimated current value of net assets is significantly lower than their book value. This results in significant losses to the partnership. These losses are allocated to the respective partners according to their profit and loss percentages. This results in Glomski having a deficit in his/her capital account. Unfortunately, Glomski has net personal assets of only $10,000 that can be used toward eliminating the deficit. This results in both you and Janis absorbing the balance of Glomski's deficit. This in turn creates a deficit for Janis that he/she cannot totally cure through the use of net personal assets.

The net effect of all of the above deficit situations is that neither Janis nor Glomski will receive a distribution of assets if the partnership is liquidated. Furthermore, Glomski will have to contribute personal assets to the partnership in the amount of $10,000. Unfortunately, you end up absorbing the net deficits of your partners due to their inadequate capital balances and insufficient personal net assets. If the

partnership proceeds with the liquidation, it is estimated that you will receive only $33,000 in cash as a final distribution. However, you will have claims against Glomski and Janis in the amounts of $6,092 and $6,308 resulting from your absorption of their deficit capital balances. The likelihood of collecting those amounts must be viewed cautiously.

Problem 9-10, Concluded

With respect to what you might offer each of your partners in lieu of liquidating the company, the answer is simple. Neither of the partners would receive a distribution of assets upon liquidation and Glomski would actually have to contribute personal net assets. Anything you offer them would be more than they would otherwise receive. If your partners merely walked away from the business, you would be left with a net value of $33,000, which is the same as what you would receive if the partnership were liquidated. It is clear that you are not benefiting by buying your partners out. Furthermore, if you wanted to liquidate the assets, it is possible that you would also incur liquidation expenses similar to those estimated for the partnership. Although the facts suggest that you need not pay either of your partners any consideration, the reality is that it may take some consideration on your part to get the job done. The answer to what you can afford to pay should also consider the significant expenditures you will be required to make if you continue the business. I believe that you are in a strong negotiating position and you should begin by offering them nothing. If you must pay something to your partners, it should be a very minimum amount.

With respect to your continuing the business with your nephew, I would welcome the opportunity to assist you in any other areas. It will be important to develop projections of future operations that reflect the change in ownership and the expenditures necessary to comply with new federal laws and regulations.

Thank you for the opportunity to be of service.

PROBLEM 9-11

Installment Liquidation Schedule

Event/Circumstance	Cash	Noncash Assets	Liabilities	Partner's Loan and Capital Balance: Ziegler	Nolan	Petersen
Profit and loss percentages				30%	30%	40%
Beginning balance	$ 12,000	$228,000	$120,000	$ 20,000	$ 50,000	$ 50,000
Additional adjustment			17,400	(5,220)		(5,220) (6,960)
Conveyance of vehicles		(14,000)			(20,300)	2,700 3,600
Sale of assets	70,000	(90,000)			(6,000)	(6,000) (8,000)
Balance	$ 82,000	$124,000	$137,400	$(11,520)	$ 41,480	$ 38,640
Payment of liabilities	(82,000)			(82,000)		
Balance	$ 0	$124,000	$	55,400	$(11,520)	$ 41,480 ..... $ 38,640
Sale of assets	92,000	(80,000)			3,600	3,600 4,800
Payment of subcontractor	(15,000)				(4,500)	(4,500) (6,000)
Bill customer for subcontractor		20,000			6,000	6,000 8,000
Balance	$ 77,000	$ 64,000	$	55,400	$ (6,420)	$ 46,580 $ 45,440
Payment of liabilities (Note A)	(42,400)			(42,400)		
Balance	$ 34,600	$ 64,000	$	13,000	$ (6,420)	$ 46,580 $ 45,440
Payment to partners (see Schedule A)	(16,600)				0	(14,257) (2,343)
Balance	$ 18,000	$ 64,000	$	13,000	$ (6,420)	$ 32,323 $ 43,097
Conveyance of vehicles		(8,000)			1,200	1,200 (10,400)
Settle liabilities	(10,000)			(13,000)	900	900 1,200
Collect receivables	20,000	(20,000)				
Balance	$ 28,000	$ 36,000	$	0	$ (4,320)	$ 34,423 $ 33,897
Payment to partners (see Schedule A)	(28,000)				0	(17,143) (10,857)
Final sale of assets	24,000	(36,000)			(3,600)	(3,600) (4,800)
Payment of professional fees	(6,000)				(1,800)	(1,800) (2,400)
Balance	$ 18,000	$ 0	$	0	$ (9,720)	$ 11,880 $ 15,840

Contribution of capital	9,720				9,720	
Payment to partners	(27,720)					(11,880)
						(15,840)
Balance	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0

Note A: The contingent liability of $13,000 remains unpaid.

Problem 9-11, Concluded

Schedule A
Schedule of Safe Payments

	Ziegler	Nolan	Petersen
Profit and loss percentages	30%	30%	40%
July 15 Distribution			
Combined capital and loan balance	$ (6,420)	$ 46,580	$ 45,440
Cash retained/expenses anticipated	(1,500)	(1,500)	(2,000)
Maximum loss possible	(19,200)	(19,200)	(25,600)
Balance	$(27,120)	$ 25,880	$ 17,840
Allocation of deficits	27,120	(11,623)	(15,497)
Safe payments	$ 0	$ 14,257	$ 2,343
August 1 Distribution			
Combined capital and loan balance	$ (4,320)	$ 34,423	$ 33,897
Cash retained/expenses anticipated	0	0	0
Maximum loss possible	(10,800)	(10,800)	(14,400)
Balance	$(15,120)	$ 23,623	$ 19,497
Allocation of deficits	15,120	(6,480)	(8,640)
Safe payments	$ 0	$ 17,143	$ 10,857

PROBLEM 9-12

Installment Liquidation Schedule

Event/Circumstance	Cash	Noncash Assets	Liabilities	Partner's Loan and Capital Balance Baker	Meyer	Paulsen
Profit and loss percentages				30%	50%	20%
Beginning balances	$ 10,000	$ 1,180,000	$ 920,000	$ 220,000	$ 30,000	$ 20,000
Sale of assets	1,080,000		(1,180,000)		(30,000)	
	(20,000)					(50,000)
Payment of liquidation expenses	(86,400)			(25,920)	(43,200)	(17,280)
Payment of liabilities	(900,000)		(920,000)	6,000	10,000	4,000
Balances	$ 103,600			$ 170,080		$(53,200) $(13,280)
Contribution of personal assets	53,280				40,000	13,280
Balances	$ 156,880			$ 170,080		$(13,200)
Allocation of deficit balances				(7,920)	13,200	$ (5,280)
Balances	$ 156,880			$ 162,160		$ (5,280)
Contribution of personal assets	1,720					1,720
Balances	$ 158,600			$ 162,160		$ (3,560)
Allocation of deficit balances				(3,560)		3,560
Final payment to partners	(158,600)			(158,600)		
Balances	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0

If the partnership were liquidated as set forth above, Baker would receive $158,600 over a 6-month period. The alternative of receiving $200,000 paid out over time would most likely have a greater present value than the value associated with liquidating. Furthermore, Baker would likely be able to receive the first of the installments earlier than the liquidation proceeds.

CHAPTER 10

UNDERSTANDING THE ISSUES

1. Separating activity into governmental, proprietary, and fiduciary funds allows for detailed reporting of resources and spending. Separating of activities also allows for a different measurement focus and basis of accounting depending on whether activities are general government or business-type activities. In addition, since the governmental activities are accounted for using a modified accrual basis of accounting in order to capture financial resource information, the account groups have served to record (i.e., list) the long-term capital assets and liabilities. Proponents of this model argue that information generated best serves the budget-planning process and answers questions relating to how much resources are needed to pay for the current level of services.

2. Budgets are the legal authorization to raise revenue, incur long-term debt, and appropriate resources. Authorized expenditures are termed appropriations. Budgetary totals are recorded in the general ledger as control accounts to allow for budgetary comparisons in the ledgers as well as to facilitate financial reporting of a budgetary comparison statement.

3. The advantage of reporting designations of the fund balance is improved communications of decisions made by the common council or town/village board that will impact the availability of resources for other purposes. While not restricted by external grantors or donors, these funds are internally designated for specific purposes, e.g., planned purchases, reduction of taxes, and improvements in services.

4. The encumbrance system is designed as an early indicator or an "expected expenditure" to prevent overspending and to plan for payment of an "expected liability." It is an estimate of an expenditure that may or may not be realized by year-end but will require the use of existing or future financial resources.

5. Capital projects funds are used to account for the inflows and outflows of financial resources raised and expended to acquire major capital assets used by the general government. This accounting is in accordance with the flows of financial resources measurement focus adopted for governmental funds. Fixed assets acquired with proceeds from general obligation bonds are accounted for in the general fixed assets account group subsequent to acquisition.

6. Revenues would be credited if resources were received from a source outside of the governmental unit that need not be repaid. An example is a property tax levy. If repayment is required, as in the case of a bond issue, the credit is to Other Financing Sources. The latter account is also used for amounts received from other funds of the same governmental unit if that unit had previously recorded the resources as revenue. The procedure prevents recognizing the same resources twice as revenue.

7. Both funds account for public-purpose trusts. If the resources and any earnings on investments can be used to finance government programs, then a special revenue fund is used. If only the earnings can be spent, a permanent fund is used.

8. Both are proprietary funds. An enterprise fund is used to account for activities of a government that provides goods or services to the public. An internal service fund is used to account for activities providing goods or services to other departments within the same governmental unit.

9. The accounting emphasis for governmental funds emphasizes the funds available, spendable resources, and their expenditures. Modified accrual accounting is required. The accounting for proprietary funds, however, emphasizes expenses rather than expenditures and is similar to that for a private enterprise. Proprietary funds measure net income, focusing on the total cost of services and the amounts of cost recovered by revenue. Proprietary funds are accounted for with a capital maintenance measurement focus, using the accrual basis of accounting. They account for their own assets (including fixed assets and depreciation) and liabilities (including long-term debt). Proprietary funds also differentiate between contributed and earned equity, just as a corporation would.

10. Private-purpose trust funds are used to account for assets held by the government on behalf of an individual, group, or organization. Permanent funds record assets held, income from which will benefit the government activities.

EXERCISES

EXERCISE 10-1

(1) c Items (a) and (b) are Other Financing Sources, while (d) is a reduction of Expenditures.

(2) d (a), (b), and (c) represent outflows of financial resources to acquire goods and services. The consumption, not the purchase of inventory, is an expenditure.

(3) a Donated fixed assets are recorded in the general fixed asset account group at their fair value when received.

(4) b Representing potential inflow of assets, Estimated Revenues is debited.

(5) d Taxes receivable is debited with offsetting credits to an allowance for uncollectible taxes and revenues.

(6) d Interfund transfers employ the other financing uses/sources accounts.

(7) c Long-term debt related to governmental funds may be operating debt or general long-term capital debt.

(8) b The purchase of equipment is an outflow of resources from the general fund. An additional entry to record the fixed asset will be made in the account group.

(9) b Expenditures are closed along with the other nominal accounts to determine an increase or decrease in the fund balance from the current period operations.

(10) d When a purchase order is approved, an encumbrance is debited to reflect the expected expenditure. A reserve is also established by a credit to Fund Balance—Reserved for Encumbrances.

EXERCISE 10-2

(1) a

(2) e

(3) b

(4) c

(5) e

(6) c

(7) b

EXERCISE 10-3

Estimated Revenues	502,000	
Estimated Other Financing Sources	115,000	
Appropriations		500,000
Estimated Other Financing Uses		45,000
Budgetary Fund Balance		72,000

(*Note to Instructor:* Property taxes paid by a proprietary fund are considered revenue.)

EXERCISE 10-4

Jan.	Cash	275,000	
	Tax Anticipation Notes Payable		275,000
	To record borrowing.		
Feb.	Cash	14,000	
	Tax Liens Receivable		12,000
	Revenues		2,000
	To record collection of tax liens.		
	Cash	16,000	
	Tax Liens Receivable		16,000
	To record collection of tax liens, sale of property.		
	Allowance for Uncollectible Tax Liens	23,000	
	Tax Liens Receivable		17,000
	Revenues		6,000
	To close allowance.		
Apr.	Cash	104,500	
	Delinquent Property Taxes Receivable		100,000
	Revenues		4,500
	To record collection of delinquent property taxes.		
	Tax Liens Receivable	35,000	
	Delinquent Property Taxes Receivable		35,000
	To transfer delinquent property taxes to tax liens.		
	Allowance for Uncollectible Delinquent Taxes	40,000	
	Allowance for Uncollectible Tax Liens		35,000
	Revenues		5,000
	To transfer allowance for uncollectible delinquent taxes to allowance for uncollectible tax liens.		
July	Property Taxes Receivable	422,000	
	Allowance for Property Taxes Receivable		21,100
	Revenues		400,900
	To record current property tax levy.		

Exercise 10-4, Concluded

Sept.	Cash	365,000	
	Property Taxes Receivable		365,000
	To collect current property taxes.		
	Tax Anticipation Notes Payable	275,000	
	Expenditures	18,000	
	Cash		293,000
	To pay off tax anticipation notes.		

EXERCISE 10-5

(1)	Cash	45,000	
	Other Financing Sources		45,000
	To transfer from municipal trust fund.		
(2)	No entry in the general fund for land. Record in the general fixed assets account group:		
	Land	75,000	
	Investment in General Fixed Assets—Donations		75,000
	To record donation of park.		
(3)	Due from State	30,000	
	Revenues		30,000
	To record state grant.		
(4)	Cash	9,000	
	Other Financing Sources		9,000
	To record sale of fire truck.		
	Additional entry in General Fixed Assets Group:		
	Investment in General Fixed Assets—General Fund Revenues	36,000	
	Equipment		36,000
(5)	Cash	5,000	
	Revenues		2,500
	Deferred Revenue		2,500
	To record sale of park stickers.		

EXERCISE 10-6

(1)	Expenditures ($120,000 + $60,000 + $125,000 + $13,000)	318,000	
	Tax Anticipation Notes Payable	200,000	
	Inventory of Supplies	45,000	
	Vouchers Payable		563,000
	To record payment of vouchers.		
(2)	Other Financing Uses	57,000	
	Cash		57,000
	To transfer to debt service fund.		
(3)	Expenditures	42,500	
	Inventory of Supplies		42,500
	To record consumption of inventory.		
	Fund Balance—Unreserved, Undesignated	2,500	
	Fund Balance—Reserved for Inventory		2,500
	To adjust reserve to match inventory balance.		

EXERCISE 10-7

(1)	Encumbrances	18,000	
	Fund Balance—Unreserved, Undesignated		18,000
	To restore previous year's encumbrances.		
(2)	Encumbrances	70,000	
	Fund Balance—Reserved for Encumbrances		70,000
	To record current encumbrances.		
(3)	Fund Balance—Reserved for Encumbrances	88,000	
	Encumbrances		88,000
	To reverse encumbrances for orders received.		
	Inventory of Supplies	87,000	
	Vouchers Payable		87,000
	To record purchase of inventory.		
(4)	Expenditures ($31,000 + $87,000 – $35,000)	83,000	
	Inventory of Supplies		83,000
	To record use of inventory.		
	Fund Balance—Unreserved, Undesignated	4,000	
	Fund Balance—Reserved for Inventory		4,000
	To adjust reserved fund balance to match inventory.		

EXERCISE 10-8

(a)	Estimated Revenues	520,000	
	Appropriations		515,000
	Budgetary Fund Balance—Unreserved		5,000
	To record budget for the year.		
(b)	Taxes Receivable—Current	378,788	
	Allowance for Uncollectible Current Taxes		3,788
	Revenues		375,000
	To record tax levy.		
(c)	Encumbrances	240,000	
	Fund Balance—Reserved for Encumbrances		240,000
	To record purchase orders authorized.		
(d)	Cash	280,000	
	Taxes Receivable—Current		280,000
	To record receipt of tax payments.		
(e)	Fund Balance—Reserved for Encumbrances	223,000	
	Encumbrances		223,000
	To reverse encumbrance entry for items invoiced.		
	Expenditures	225,000	
	Vouchers Payable		225,000
	To record invoices vouchered.		
(f)	Expenditures	135,000	
	Vouchers Payable		135,000
	To record salaries approved for payment.		
(g)	Cash	100,000	
	Revenues		100,000
	To record receipt of a grant-in-aid.		
(h)	Cash	10,000	
	Revenues		10,000
	To record receipt of miscellaneous revenues.		
(i)	Expenditures	120,000	
	Cash		120,000
	To record purchase of property. (The property would also be entered in the general fixed assets accounts group.)		
(j)	No entry. Recorded only in general fixed assets account group.		
(k)	Other Financing Uses	12,000	
	Due to Other Funds		12,000
	To record amount due other funds and approved for payment.		

Exercise 10-8, Concluded

(l)	Due from State	30,000	
	Revenues		30,000
	To record share of state sales taxes receivable.		
(m)	Vouchers Payable	175,000	
	Cash		175,000
	To record vouchers paid.		
(n)	Budgetary Fund Balance—Unreserved	5,000	
	Appropriations	515,000	
	Estimated Revenues		520,000
	To reverse budgetary entry.		
	Revenues	515,000	
	Expenditures		480,000
	Other Financing Uses		12,000
	Fund Balance—Unreserved, Undesignated		23,000
	Fund Balance—Unreserved, Undesignated	17,000	
	Encumbrances		17,000
	To close nominal accounts.		

EXERCISE 10-9

(a)	Land	325,000	
	Buildings	975,000	
	Investment in General Fixed Assets—General Funds		1,300,000
	To record property purchase.		
(b)	Land	330,000	
	Buildings	220,000	
	Investment in General Fixed Assets—Donations		550,000
	To record donated property at its fair value.		
(c)	Construction in Progress	800,000	
	Investment in General Fixed Assets—Capital Projects Funds (General Obligation Bonds)		800,000
	To record cost of work to date.		
(d)	Machinery and Equipment	190,000	
	Investment in General Fixed Assets—General Fund Revenues		190,000
	To record fire engine purchase at full value.		
	Investment in General Fixed Assets—General Fund Revenues	100,000	
	Machinery and Equipment		100,000
	To record trade-in.		
(e)	Infrastructure	250,000	
	Investment in General Fixed Assets—Capital Projects Funds		250,000
	To record cost of new street.		

EXERCISE 10-10

(1)	Amount to Be Provided for Compensated Absences	2,200,000	
	Unfunded Compensated Absences		2,200,000
	To record the noncurrent portion of the obligation for vacations.		
(2)	Unfunded Compensated Absences	400,000	
	Amount to Be Provided for Compensated Absences		400,000
	To reduce the long-term obligation for vacations.		
(3)	Amount to Be Provided for Claims and Judgments	11,000,000	
	Claims and Judgments Payable		11,000,000
	To record the noncurrent portion of the judgment against the city.		
(4)	Amount to Be Provided for Payment of Bonds	100,000,000	
	General Obligation Bonds Payable		100,000,000
	To record the issuance of general obligation bonds at maturity value.		
(5)	Amount Available in the Debt Service Fund	1,000,000	
	Amount to Be Provided for Payment of Bonds		1,000,000
	To record accumulation of resources in the Debt Service Fund for bond principal.		
(6)	Amount Available in the Debt Service Fund	4,800,000	
	Amount to Be Provided for Payment of Bonds		4,800,000
	To record interest earned and appreciation in fair value of investments in the Debt Service Fund.		

EXERCISE 10-11

(1) c Item A is debt service, B is in the trust fund, and D is within the proprietary fund.

(2) c As an interest adjustment factor, the premium should be transferred to the debt service fund that pays the interest.

(3) a The general fund uses modified accrual. Enterprise funds recognize revenue when earned under full accrual accounts.

(4) a The entry for reinstatement is:

Encumbrances	XXX	
Fund Balance—Unreserved, Undesignated		XXX

(5) a The cash flow statement for governmental proprietary funds and nonexpendable trust funds has four parts. Cash from operations, cash from capital financing activities, cash from non-capital financing activities, and cash from investing activities.

Exercise 10-11, Concluded

(6) d Payments for services provided by an internal service fund within the same governmental entity are considered quasi-external transactions.

(7) b This is one of two reclassification entries:

Deferred Revenues	XXX	
Revenues		XXX

(8) c The revenue is recorded by the general fund, but the debt service fund makes the payment of principal and interest.

(9) a Governmental funds do not report cash flows since the amounts reported using modified accrual are near cost.

(10) b Accounting procedures of internal service funds resemble commercial accounting.

EXERCISE 10-12

(1) a Permanent funds are classified as governmental and follow accounting rules similar to general funds.

(2) d The debt service fund follows general fund procedures except for the usual practice of not using budgetary entries.

(3) c The amount to be provided is reduced with the receipt of available funds in the debt service fund.

(4) a Debt service funds are used to account for the payment of interest and principal on general government long-term debt, not short-term debt or the debt of proprietary funds.

(5) b With no commitment by the governmental unit, the liability is solely that of the assessed property owners. However, the amount of the bond liability may be shown in the notes to the financial statements.

(6) b The agency fund internally distributes monies to recipient funds.

(7) d This is the typical entry to record a year's capitalizable costs of an unfinished capital project.

(8) d Capital projects funds are used to account for major construction activity financed by general tax revenues or special assessments.

(9) a An investment trust fund is used to account for assets, liabilities, net assets, and changes in net assets of external participants in an investment pool managed by the government.

(10) a Permanent funds are used to account for public-purpose trusts, for which earnings are expendable for a specific purpose. Permanent funds are classified as governmental funds.

EXERCISE 10-13

	Fund or Account Group	Entries	Debit	Credit
(a)	Capital Projects Fund	Estimated Other Financing Sources	2,400,000	
		Appropriations		850,000
		Budgetary Fund Balance		1,550,000
		To record budgeted amounts for city hall construction project.		
	General Fund	The general fund budgetary entry would include $400,000 in Estimated Other Financing Uses.		
(b)	General Fund	Other Financing Uses	400,000	
		Cash		400,000
		To record contribution to capital projects fund.		
	Capital Projects Fund	Cash	400,000	
		Other Financing Sources		400,000
		To record contribution from the general fund.		
(c)	Capital Projects Fund	Cash	1,975,000	
		Expenditures	5,000	
		Other Financing Uses	20,000	
		Other Financing Sources		2,000,000
		To record proceeds from the sale of bonds.		
	General Long-Term Debt	Amount to Be Provided for Payment of Serial Bonds	2,000,000	
		Serial Bonds Payable		2,000,000
		To record liability for the serial bonds.		
(d)	Capital Projects Fund	Encumbrances	2,300,000	
		Fund Balance—Reserved for Encumbrances		2,300,000
		To record signing of construction contract.		
(e)	Capital Projects Fund	Fund Balance—Reserved for Encumbrances	1,000,000	
		Encumbrances		1,000,000
		To record liquidation of encumbrances.		
		Expenditures	1,000,000	
		Cash		1,000,000
		To record expenditures for partial completion.		
	General Fixed Assets Account Group	Construction in Progress	1,000,000	
		Investment in General Fixed Assets—Capital Projects Fund(s)		1,000,000
		To record partial completion of city hall project.		

EXERCISE 10-14

(a) No entry is made in the Debt Service Fund.

(b)	Expenditures	800,000	
	Matured Bonds Payable		500,000
	Matured Interest Payable (6% × $5,000,000)		300,000
	To record matured items.		
(c)	Cash	800,000	
	Other Financing Sources		800,000
	To record receipt of cash from the general fund.		
(d)	Cash with Fiscal Agent	800,000	
	Cash		800,000
	To record transfer to First Bank.		
(e)	Matured Bonds Payable	500,000	
	Matured Interest Payable	291,000	
	Cash with Fiscal Agent		791,000
	To record payments by bank.		

EXERCISE 10-15

(a)	Restricted Assets—Cash for Construction	300,000	
	Interfund Transfer from General Fund		300,000
	To record restricted amount received from the general fund.		
(b)	Accounts Receivable	220,000	
	Due from Other Funds	67,000	
	Operating Revenues (or Billings for Services)		287,000
	To record billings.		
(c)	Cash	232,000	
	Due from Other Funds		42,000
	Accounts Receivable		190,000
	To record collections.		
(d)	Restricted Assets—Revenue Bond Development Cash	700,000	
	Revenue Bonds Payable		700,000
	To record bond issuance with restriction on proceeds.		
(e)	No entry. Enterprise Funds do not use budgetary accounts for encumbrances.		
(f)	Construction in Progress	360,000	
	Contracts Payable from Restricted Assets		360,000
	To record liability for work to date.		
(g)	Contracts Payable from Restricted Assets	300,000	
	Restricted Assets—Revenue Bond Development Cash		300,000
	To record issuance of check from restricted cash.		

EXERCISE 10-16

(a) GF, GFAAG

(b) DSF, CPF, GLTDAG

(c) GF, DSF, GLTDAG

(d) DSF, GLTDAG

(e) CPF, GFAAG

(f) PF, SRF

(g) ENT, INT, GFAAG, PPT

(h) ENT

(i) CPF, DSF, GLTDAG, GFAAG

EXERCISE 10-17

(1)	g	(6)	j
(2)	k	(7)	d
(3)	l	(8)	a
(4)	l	(9)	f
(5)	e	(10)	b

EXERCISE 10-18

(1)	b	(6)	g
(2)	f	(7)	a
(3)	d	(8)	d
(4)	d	(9)	i
(5)	b	(10)	h

PROBLEMS

PROBLEM 10-1

(1) b The GASB stipulated that the measurement focus for governmental funds is the flow of financial resources.

(2) c Interperiod equity seeks to determine whether current-year revenues are sufficient to pay for current-year services or whether future taxpayers will be required to assume burdens for services previously provided. The flow of financial resources measurement focus measures the extent to which financial resources obtained during a period are sufficient to cover claims incurred during that period against financial resources of a governmental fund. The GASB recognized that because budgetary and fund accounting practices cause costs of government activities to be spread among a number of funds, general purpose financial reporting must also include the measurement of the cost of services provided during a period.

(3) a Long-term debt used to purchase fixed assets is recorded in the general fund as an other financial resource, but the debt itself is recorded in the general long-term debt account group.

(4) b Funds are used to separate reporting of the diverse variety of governmental activities and to meet legal provisions stipulating use of resources imposed on the governmental unit.

(5) a The Governmental Accounting Standards Board is the authoritative body for financial reporting standards used by state and local governments.

(6) b Reporting outstanding encumbrances as a fund balance reserve indicates that not all of the resources in the fund are available for new expenditures.

(7) d Current standards specify that neither interest nor principal on long-term debt should be accrued in advance of the year in which it is due. Governments may, however, opt to accrue principal if resources are available in the debt service fund by year-end.

PROBLEM 10-2

(1) c These notes are short-term operating debt that will be repaid out of current revenues.

(2) b A hypothetical entry to record the tax levy is:

Taxes Receivable—Current	100,000	
Allowance for Uncollectible Current Taxes		4,000
Revenues		96,000

Because revenues are estimated and recorded net of the uncollectible, a decrease in the allowance is a revision (in this case an increase) of revenues. This is true even if the revenues were recorded in a prior period.

(3) a Encumbrance control is increased when an order is placed and decreased when the voucher is recorded.

(4) a Grants from outside units are revenues unless they require the prior recording of an expenditure that is then reimbursed.

Problem 10-2, Concluded

(5) c The appropriation still available for use is the original appropriation less expenditures and encumbrances.

(6) d When supplies are received, the original entry to encumber the estimated cost is reversed.

(7) a The general fixed asset account group records the fixed assets of governmental funds but not proprietary funds or trust funds.

(8) b Revenues are recognized when measurable and available to meet current-period expenditures. This is interpreted to include collections of the current period or shortly after year-end (usually within 60 days of year-end).

(9) d The fixed asset is recorded in the account group at its fair value with a credit to Investment in General Fixed Assets identifying the original funding source.

(10) c Expenditures are recorded when the liability is incurred. Under modified accrual basis of accounting, the noncurrent liability is recorded in the general long-term debt account group.

PROBLEM 10-3

(a) Estimated Revenues	xxx	
Estimated Other Financing Sources	xxx	
Appropriations		xxx
Budgetary Fund Balance—Unreserved		xxx
(b) Taxes Receivable—Current	xxx	
Allowance for Uncollectible Current Taxes		xxx
Revenues		xxx
(c) Cash	xxx	
Allowance for Uncollectible Delinquent Taxes	xxx	
Taxes Receivable—Delinquent		xxx
(d) Encumbrances	xxx	
Fund Balance—Reserved for Encumbrances		xxx
(e) Expenditures	xxx	
Vouchers Payable		xxx
(f) Fund Balance—Reserved for Encumbrances	xxx	
Encumbrances		xxx
Expenditures	xxx	
Vouchers Payable		xxx
(g) Cash	xxx	
Other Financing Sources		xxx

Problem 10-3, Concluded

(h)	Expenditures	xxx	
	Cash		xxx
(i)	Cash	xxx	
	Tax Anticipation Notes Payable		xxx

PROBLEM 10-4

(1) At inception of the lease:

General Fund	Expenditures	800,000	
	Other Financing Sources		800,000
	To record the acquisition of the equipment under capital lease.		
General Fixed Assets Account Group	Leased Equipment	800,000	
	Investment in General Fixed Assets—Capital Leases		800,000
	To record the equipment.		
General Long-Term Debt Account Group	Amount to Be Provided	800,000	
	Capital Lease Obligation		800,000
	To record the capital lease obligation.		

(2) First payment:

General Fund	Expenditures (interest)	48,000	
	Expenditures (principal)	60,694	
	Cash		108,694
	To record the first lease payment of principal and interest.		
General Fixed Assets Account Group	Investment in General Fixed Assets—Capital Leases	80,000	
	Leased Equipment		80,000
	To record the depreciation on the leased equipment (optional entry under current standards).		
General Long-Term Debt Account Group	Capital Lease Obligation	60,694	
	Amount to Be Provided		60,694
	To record the reduction of the lease principal. *Note:* Each lease payment reduces the principal balance of the obligation. Therefore, each subsequent payment will allocate a smaller portion to interest and a larger portion to principal.		

PROBLEM 10-5

(1) Year 1:

General Fund	Expenditures	4,000,000	
	Cash		4,000,000
	To record the pension benefits financed by current-year resources.		
General Long-Term Debt Account Group	Amount to Be Provided	2,000,000	
	Unfunded Pension Obligation		2,000,000
	To record the portion of the actuarial required contribution not financed in the current period.		

(2) Year 2:

General Fund	Expenditures	6,000,000	
	Cash		6,000,000
	To record the pension benefits paid in Year 2.		
General Long-Term Debt Account Group	Unfunded Pension Obligation	1,000,000	
	Amount to Be Provided		1,000,000
	To record the payment of $1,000,000 over the actuarial required contribution in Year 2.		

PROBLEM 10-6

(1) Expenditures

(2) Investment in General Fixed Assets—Capital Leases

(3) Amount to Be Provided for Lease Payments	150,000	
Capital Lease Payable		150,000

PROBLEM 10-7

	Entry in General Fund			Entry in General Fixed Assets Account Group		
(a)	Expenditures	75,000		Machinery and Equipment	75,000	
	Voucher Payable		75,000	Investment in General Fixed Assets —General Fund Revenues		75,000
	To record voucher.			To record purchase.		
	Fund Balances Reserved for Encumbrances	70,000				
	Encumbrances		70,000			
	To reverse encumbrance.					
(b)	Cash	5,000		Investment in General Fixed Assets— General Fund Revenues	15,000	
	Other Financing Sources		5,000	Machinery and Equipment		15,000
	To record proceeds from equipment sale.			To remove equipment sold.		
(c)	No entry.			Land	100,000	
				Investment in General Fixed Assets—Donations		100,000
				To record donated land.		
				Construction in Progress	300,000	
				Investment in General Fixed Assets—Donations		300,000
				To record partially finished donated building.		
(d)	Expenditures	68,000		Investment in General Fixed Assets— Special Revenue Funds	35,000	
	Cash		68,000	Machinery and Equipment		35,000
	To record payment for snow plow.			To remove traded snow plow.		
				Machinery and Equipment	80,000	
				Investment in General Fixed Assets—General Fund Revenues		80,000
				To record new snow plow acquired.		

PROBLEM 10-8

Trans-action	Fund or Group	Entry		
(a)	GLTDAG	Amount to Be Provided for Payment of Term Bonds	2,700,000	
		Term Bonds Payable		2,700,000
(b)	General Fund	Other Financing Uses	200,000	
		Cash		200,000
	GLTDAG	Amount Available in Debt Service Funds—Term Bonds	200,000	
		Amount to Be Provided for Payment of Term Bonds		200,000
(c)	General Fund	Other Financing Uses	135,000	
		Cash		135,000
	GLTDAG	Amount Available in Debt Service Funds—Serial Bonds	135,000	
		Amount to Be Provided for Payment of Serial Bonds		135,000
(d)	General Fund	Expenditures	22,000	
		Cash		22,000
	GFAAG	Equipment	25,000	
		Investment in General Fixed Assets—General Fund Revenues		25,000
		Investment in General Fixed Assets—General Fund Revenues	15,000	
		Equipment		15,000
(e)	GLTDAG	Serial Bonds Payable	135,000	
		Amount Available in Debt Service Funds—Serial Bonds		135,000
(f)	GFAAG	Construction in Progress	450,000	
		Investment in General Fixed Assets—Capital Projects Fund		450,000

PROBLEM 10-9

(1) a Enterprise funds record their own debt.

(2) d The general fund records only its transfer; the debt proceeds are recorded as other financing sources in the capital projects fund.

(3) d All self-sustaining activities are recorded in proprietary funds; in this case, both are enterprise funds.

(4) a Services to other governmental units by an internal service fund are recorded as either revenues or billings.

(5) b The change in the fund balance is equal to (revenues plus other sources) minus (expenditures and other uses).

(6) c The grant is for the construction of a fixed asset.

(7) b The capital projects fund records other financing sources and uses. The debt service fund records other financing sources. The general long-term debt account group records the amount available in the debt service fund for principal only. Because the premium is an adjustment to the interest, no entry is made in the GLTDAG.

(8) b The agency fund distributes the collections to the recipient funds.

PROBLEM 10-10

(1) Entries in the Internal Service Fund:

Expenses—Claims and Judgments	1,500,000	
Cash		1,300,000
Claims and Judgments Liability		200,000
To record losses incurred and claims paid.		
Cash	2,000,000	
Revenues—Insurance Premiums		2,000,000
To record premium revenue from other departments.		

(2) Entries in General Fund:

Expenditures	1,200,000	
Cash		1,200,000
To record premium transferred to insurance internal service fund.		

Entries in Utility Enterprise Fund:

Expenses	800,000	
Cash		800,000
To record premium transferred to insurance internal service fund.		

(3) If the county elects to use a general fund for its self-insurance activity, revenue can be recognized from other funds up to the amount of actual losses incurred ($1,500,000) or 75% of the amount actually billed and transferred from other funds. The $500,000 excess of transfers over actual losses must be reported as an interfund transfer. Similarly, the funds transferring the premium would be limited to their share of actual losses in the recognition of expenditures/expenses.

PROBLEM 10-11

(1) b, f

(2) b, e

(3) d, b

(4) a, c

PROBLEM 10-12

(1) General Fixed Assets Account Group

(2) General Fixed Assets Account Group

(3) General Long-Term Debt Account Group

(4) Internal Service Fund

(5) General Long-Term Debt Account Group

(6) Private-Purpose Trust

(7) Agency Fund

(8) Agency Fund

(9) Permanent Fund

(10) Special Revenue Fund

PROBLEM 10-13

(1)	(a) Inventory of Materials and Supplies	72,000	
	Vouchers Payable		72,000
	To record purchases on account.		
	(b) Operating Expenses	87,000	
	Inventory of Materials and Supplies		87,000
	To record inventory adjustment ($80,000 + $72,000 – $65,000).		
	(c) Operating Expenses	235,000	
	Cash		235,000
	To record salaries and wages paid.		
	(d) Operating Expenses	40,000	
	Cash		40,000
	To record payment of utility charge.		
	(e) Operating Expenses	139,500	
	Allowance for Depreciation—Building		6,500
	Allowance for Depreciation—Computer Equipment		133,000
	To record depreciation.		
	(f) Due from General Fund	392,000	
	Due from Water and Sewer Fund	84,000	
	Due from Special Revenue Fund	42,000	
	Operating Revenues		518,000
	To record billings.		
	(g) Cash	506,000	
	Due from General Fund		396,000
	Due from Water and Sewer Fund		84,000
	Due from Special Revenue Fund		26,000
	To record collections.		
	(h) Vouchers Payable	94,000	
	Cash		94,000
	To record voucher payment ($41,000 + $72,000 – $19,000).		
(2)	Closing Entries:		
	Operating Revenues	518,000	
	Operating Expenses		501,500
	Income Summary		16,500
	To close nominal accounts.		
	Income Summary	16,500	
	Retained Earnings—Unreserved		16,500
	To close Income Summary.		

PROBLEM 10-14

(1)	Landfill Expense	500,000	
	Landfill Closure and Post-Closure Care Liability		500,000
	To record 300,000 ÷ 6,000,000 × $10,000,000.		
(2)	Landfill Expense	555,172	
	Landfill Closure and Post-Closure Care Liability		555,172
	To record (300,000 + 300,000) ÷ 5,800,000 × $10,200,000 less $500,000 already recognized.		

(3) If the landfill is accounted for in the general fund, then the liability would be recognized in the general long-term debt account group. No entries would be made in the general fund until actual payments are made.

PROBLEM 10-15

	Fund or Account Group	Journal Entry		
(1)	General Fund	Estimated Revenues	2,500,000	
		Appropriations		2,450,000
		Budgetary Fund Balance—Unreserved		50,000
		To record the budget.		
(2)	Special Revenue Fund	Estimated Revenues	264,500	
		Appropriations		250,000
		Budgetary Fund Balance—Unreserved		14,500
		To record budget for gas tax.		
(3)	General Fund	Taxes Receivable—Current	1,400,000	
		Allowance for Uncollectible Current Taxes		28,000
		Revenues		1,372,000
		To record tax levy.		
(4)	Capital Projects Fund	Cash	985,000	
		Expenditures	5,000	
		Other Financing Uses	10,000	
		Other Financing Sources		1,000,000
		To record bond sale.		
	General Debt Account Group	Amount to Be Provided for Payment of Term Bonds	1,000,000	
		Term Bonds Payable		1,000,000
		To record long-term debt.		
(5)	Capital Projects Fund	Encumbrances	1,000,000	
		Fund Balance—Reserved for Encumbrances		1,000,000
		To record signed contract.		

Problem 10-15, Concluded

	Fund or Account Group	Journal Entry		
(6)	Capital Projects Fund	Fund Balance—Reserved for Encumbrances.....	1,000,000	
		Encumbrances.....		1,000,000
		To liquidate encumbrances.		
	Capital Projects Fund	Expenditures.....	990,000	
		Cash.....		990,000
		To record school cost.		
	General Fixed Assets Account Group	Buildings.....	990,000	
		Investment in General Fixed Assets— Capital Projects Funds		990,000
		To record fixed asset.		
(7)	General Fund	Other Financing Uses	100,000	
		Cash.....		100,000
		To record transfer to debt service fund.		
	Debt Service Fund	Cash	100,000	
		Other Financing Sources		100,000
		To record transfer from general fund.		
(8)	General Fixed Assets Account Group	Land.....	100,000	
		Investment in General Fixed Assets— Donations.....		100,000
		To record land donation.		
(9)	Special Revenue Fund	Cash	205,000	
		Due from State Government	60,000	
		Revenues		205,000
		Deferred Revenues.....		60,000
		To record state gas taxes.		
(10)	Special Revenue Fund	Expenditures	210,000	
		Vouchers Payable.....		210,000
		To record vouchers approved for payment.		

CHAPTER 11

UNDERSTANDING THE ISSUES

1. The new reporting model adopts full accrual accounting for the government-wide statements for both governmental and business-type activities. Therefore, a conversion of the governmental fund activity is necessary in order to present government-wide financial statements. Since business-type activities are already recorded at full accrual, there is no conversion necessary from fund to government-wide financial statements.

2. Both fund and government-wide financial statements are required in the new model. Fund statements include (1) the governmental fund balance sheet and statement of revenues, expenditures, and changes in fund balance; (2) the proprietary fund balance sheet, statement of revenues, expenses, and changes in net assets, and statement of cash flows; and (3) the fiduciary fund statement of net assets and statement of changes in net assets. The fund statements provide information on flows of financial revenues. Government-wide statements include a statement of net assets and a statement of activities. They provide full accrual, consolidated government-wide reports. Budgetary comparison information may be reported in a statement and in a schedule accompanying the financial statements.

3. Major funds are those funds which management chooses to disclose in a separate column in the fund statements either due to their relative size or because they are of particular interest or convey unique information. The general fund is always considered a major fund. Funds whose assets, liabilities, revenues, or expenditures/expenses are at least 10% of all funds in a category (all governmental or all enterprise) and are at least 5% of all government and enterprise funds combined must be considered major funds.

4. The purpose of the MD&A is to give a concise overview and analysis of the information in the government's financial statements. Information required to be included: a brief discussion of the basic financial statements, including how they relate to each other and the significant differences in the information they provide; condensed current and prior-year financial information from the government-wide financial statements; an analysis of the government's overall financial position and results of operations, including impact of important economic factors; an analysis of individual fund financial information, including the reasons for significant changes in fund balances (or net assets) and whether limitations significantly affect the future use of the resources; an analysis of significant variations between original and final budget amounts and between final budget amounts and actual budget results for the general fund; a description of changes in capital assets and long-term liabilities during the year; a discussion of the condition of infrastructure assets; and a description of currently known facts, decisions, or conditions that have or are expected to have a material effect on the financial position or results of operations.

5. The budgetary comparisons may be included as an additional statement or in a schedule. The original as well as amended budget must be included with a comparison of actual results reported on a budgetary basis.

6. Interfund transactions are recorded separately from other transactions. Interfund payables and receivables are eliminated when government-wide statements are prepared. Interfund payables and receivables are "netted" and shown separately as internal balances. In addition, internal service fund revenues and expenses are eliminated, and charges are adjusted to eliminate the internal profit by decreasing expenses for internal service fund services in the various funds.

EXERCISES

EXERCISE 11-1

Note to Instructor: The 2004 CAFR of the city of Milwaukee needs to be examined to answer these questions. The general fund is always considered a major fund. Every other governmental fund from the combining statements must be examined to determine if it is at least 10% of all the governmental funds and at least 5% of all government and enterprise funds combined. Every enterprise fund from the combining statements must also be examined to determine if it is at least 10% of all the enterprise funds and at least 5% of all government and enterprise funds combined. The size tests are based on assets, liabilities, revenues, and expenditures/expenses. Internal service funds are not considered major funds. In addition, management may determine funds that it wishes to disclose in a separate column in the fund statements because they are of particular interest or convey unique information, even though they do not meet the size test.

EXERCISE 11-2

Note to Instructor: This assignment can also include a class presentation or class discussion as part of a student project. It may be useful to have student groups or teams work on this assignment.

EXERCISE 11-3

(a) Governmental Fund Statement of Revenues, Expenditures, and Changes in Fund Balance.

General Fund	SRF B	CPF 1	CPF 2	Other Governmental Funds	Total

(b) Proprietary Fund Statement of Revenues, Expenses, and Changes in Net Assets

Enterprise Fund D	Enterprise Fund E	Other Enterprise Funds	Totals	Total Internal Service Funds

EXERCISE 11-4

(1) c Both expenditures for debt principal and capital outlays must be eliminated and converted to expenses. In addition, depreciation expense must be recorded.

(2) c The government-wide statements report internal service funds among the governmental activities and do not include fiduciary funds.

(3) c Revenue that is specific to a particular activity, function, or program, such as fees for services, specific tax revenue, operating grants, or capital grants, is considered program revenue. Other revenue is considered general government revenue necessary to support all activities not covered by specific program revenues.

(4) d The government-wide statements report internal service funds among the governmental activities. The reason is that these are internal cost allocation mechanisms and not business-type activities. Thus, internal service funds are included in the governmental activities column in the government-wide statements.

(5) a When moving from modified accrual to full accrual accounting, many long-term liabilities may need to be adjusted.

(6) c An up-to-date inventory and a current condition assessment are necessary for the modified approach. In addition, governments must keep the capital assets maintained at or above the predetermined condition level.

(7) d The government-wide statements do not include fiduciary funds but do include component units, and internal service funds are included with governmental activities.

(8) a All capital assets, including infrastructure, must be included in the government-wide statements. In addition, all capital assets must be depreciated. Governments may elect the modified approach in lieu of depreciation if they meet the criteria set forth for the modified approach.

(9) c The reconciliation is necessary for the governmental funds to convert the modified accrual fund information to the full accrual government-wide governmental activities information. In addition, internal service fund balances must be added to the governmental funds as part of the conversion.

(10) b The statement of cash flows is part of the proprietary fund financial statements but is not part of the government-wide statements.

EXERCISE 11-5

To convert from the governmental fund balance sheet to the government-wide statement of net assets, the following adjustments are necessary:

- Add general capital assets, including infrastructure, net of accumulated depreciation.
- Add general long-term liabilities.
- Add assets and liabilities of most internal service funds.
- Adjust balances of assets and liabilities from modified accrual to full accrual.
- Convert fund balances to three categories of net assets—invested in capital, restricted, and unrestricted.

EXERCISE 11-6

(1) a The governmental cash flow statement contains four parts: operating, capital-related financing, non-capital-related financing, and investing.

(2) c In the fund statements, proprietary funds are included in the proprietary fund balance sheet, statement of revenues, expenses, and changes in net assets, and statement of cash flows. In the government-wide statements, proprietary funds are included in business-type activities columns in both the statement of net assets and the statement of changes in net assets.

(3) d Account groups are not reported in either the fund or government-wide statements.

(4) b Total columns are not required for combining statements but are quite commonly shown. Total columns are required in both the fund and government-wide combined statements under the new reporting model.

(5) a A statement of cash flows is required for all enterprise funds.

(6) d Construction in progress will be reported in the government-wide statements as a capital asset. Capital assets are not reported in the fund statements.

EXERCISE 11-7

All capital assets, including infrastructure assets, are included in the financial statements. In addition, these assets are depreciated. (These rules are effective three years after the requirement for implementing the new reporting model.) Governments may adopt a “modified approach” to depreciation if they have an up-to-date inventory of their infrastructure assets and have a current condition assessment. As long as the assets are maintained at an agreed-upon condition, depreciation does not need to be recorded. The advantage of recording depreciation is ease of implementation. The disadvantages include recording the additional expense on the statement of activities and the lack of useful information in the opinion of many governmental managers and financial statement users. The advantage of the modified approach is that as long as assets are maintained, there is no depreciation expense recorded on the statement of activities. The disadvantage is the cost of implementation and monitoring. Also, if the condition drops below the required level, the government must record depreciation.

PROBLEMS

PROBLEM 11-1

(1) c Combining statements are used to add together nonmajor funds of the same type in order to present summary data in the combined statements. They are not considered part of the basic financial statements but are included in the comprehensive annual financial statement.

(2) d The government-wide financial statements include a statement of net assets and a statement of changes in net assets with an economic resources measurement focus and are prepared on a full accrual basis of accounting. Governmental activities and business-type activities of the primary government are included as well as financial information about component units.

(3) b The statement of activities is presented using a net program expense format where program revenues are subtracted from program expenses to determine the amount funded by general revenues.

(4) d Special purpose governments that provide business-type activities only are permitted to report the financial statements required for enterprise funds. Since these are already on an economic measurement focus using full accrual accounting and all of the expenses are covered by program revenues, there is no need to convert to government-wide statements.

(5) b Budgetary comparison may be included as a separate statement or schedule. The budgetary comparisons are considered required supplementary information and not part of the basic financial statements.

(6) a The three major sections of the comprehensive annual financial statement are the introductory section, the financial section, and the statistical section.

(7) a The government-wide financial statements include a statement of net assets and a statement of changes in net assets with an economic resources measurement focus and are prepared on a full accrual basis of accounting. Governmental activities and business-type activities of the primary government are included as well as financial information about component units. Comparison with prior-year data is not required.

(8) a The new reporting model requires that all capital assets, including infrastructure, be recorded and depreciated. Governments have the option of choosing a modified approach for infrastructure assets. Under the modified approach, governments do not report depreciation if they have an up-to-date inventory of capital assets, a condition assessment of all infrastructure assets, and maintenance of them at or above a predetermined level.

(9) d Major funds are those funds which management chooses to disclose in a separate column in the fund statements either due to their relative size or because they are of particular interest or convey unique information. Funds whose assets, liabilities, revenues, or expenditures/expenses are at least 10% of all funds in a category (all governmental or all enterprise) and at least 5% of all government and enterprise funds combined must be considered a major fund. The general fund is always considered a major fund.

Problem 11-1, Concluded

(10) b The Office of Management and Budget (OMB) sets standards for audits of recipients of federal financial assistance. Guidance for the "single audit" is found in OMB Circular A-133.

(11) c OMB Circular A-133 applies to state, local, and not-for-profit organizations that receive more than $300,000 of federal financial assistance in the form of grants, contracts, etc.

(12) b The total amount of internal control and compliance testing is based on making sure that 50% of the federal expenditures are subject to audit.

PROBLEM 11-2

Note to Instructor: This assignment can also include a class presentation or class discussion as part of a student project. It may also be useful to have student groups or teams work on this assignment.

PROBLEM 11-3

(1) The school district is not legally separate, so it is part of the city and not a component unit.

(2) The authority is legally separate, the city has financial accountability, and so it is a component unit. Because it leases equipment exclusively to the city, the financial information will be blended in the fund and government-wide statements.

(3) The mayor appoints all members of the board so it can be assumed that there is control over the board. Since the housing authority does not primarily serve the city, the financials will be discretely presented in the government-wide statements.

(4) Since the hospital is owned by the city, it is not legally separate and therefore part of the city and not a component unit.

(5) The water utility is a joint venture and not a component unit. The city's equity interest will be presented in the government-wide statements as an asset.

(6) The school district is a special purpose government separate from the city.

PROBLEM 11-4

The authority is legally separate. The primary government appoints a voting majority of the board, but the primary government may not be able to impose its will over the authority due to the staggered terms and security of office. There is a financial burden/benefit, so the authority should be a component unit.

PROBLEM 11-5

The financial reporting entity of a government includes the primary government and all its component units. An example of a primary government is a city. An example of a component unit is a legally separate hospital for which the city is financially accountable. Component units can either be blended into the financial reports of the primary government or discretely presented in a separate column. Blending is required if the component unit is established primarily to serve the primary government or if the two boards are essentially the same.

PROBLEM 11-6

(1) Budgetary Fund Balance	305,000	
Estimated Other Financing Uses	25,000	
Appropriations	640,000	
Estimated Other Financing Sources		950,000
Estimated Revenues		20,000

(2) Statement of Revenues, Expenditures, and Changes in Fund Balance

For the Year Ended December 31, 20X7

Revenues	$ 16,600
Expenditures	(686,600)
Excess of revenue over expenditures	$ (670,000)
Other financing sources	900,000
Other financing uses	(15,000)
Excess of revenue and other financing sources over expenditures and other financing uses	$ 215,000
Fund balance, January 2, 20X7	0
Fund balance, December 31, 20X7	$ 215,000

(3) Balance Sheet as of December 31, 20X7

Cash	$ 75,000	Contracts payable	$ 60,000
Investments	200,000	Fund balance reserved for encumbrances	$ 80,000
Total assets	$275,000	Unreserved	135,000
		Total fund balance	$215,000
		Total liabilities & fund balance	$275,000

PROBLEM 11-7

	Fund	Debit	Credit	Government-Wide
Revenues	(16,600)			(16,600)
Other Financing Sources	(900,000)	(2) 900,000		0
Expenditures	686,600		686,600 (1)	0
Other Financing Uses	15,000			15,000
Bonds Payable	0		900,000 (2)	(900,000)
Capital Assets	0	(1) 686,600		686,600

The adjustments will convert (eliminate) other financing sources and transfer that balance into bonds payable. The expenditure for capital assets will be eliminated since capital assets must be recorded on the government-wide statement of net assets.

PROBLEM 11-8

Statement of Net Assets
June 30, 20X8

	Governmental Activities	Business-Type Activities	Total Primary Government
Assets:			
Cash and cash equivalents	$ 280,000	$ 75,000	$ 355,000
Receivables	36,000	145,000	181,000
Inventory		56,000	56,000
Capital assets (net)	1,500,000	1,100,000	2,600,000
Total assets	$1,816,000	$1,376,000	$3,192,000
Liabilities:			
Accounts payable	$ 65,000	$ 56,000	$ 121,000
Noncurrent liabilities	500,000	300,000	800,000
Total liabilities	$ 565,000	$ 356,000	$ 921,000
Net assets:			
Invested in capital, net of related debt	$1,000,000	$ 800,000	$1,800,000
Restricted	65,000	36,000	101,000
Unrestricted	186,000	184,000	370,000
Total net assets	$1,251,000	$1,020,000	$2,271,000

PROBLEM 11-9

Statement of Activities
As of June 30, 20X8

		Program Revenues			Net Revenue Change in Net Assets		
	Expenses	Charges for Services	Operating Grants	Capital Grants	Governmental Activities	Business-Type Activities	Total
Governmental activities:							
General government	$1,300,000	$ 0	100,000		$(1,200,000)		$(1,200,000)
Public safety	240,000	25,000	$ 70,000		(145,000)		(145,000)
Public works	1,000,000				(1,000,000)	0	(1,000,000)
Health and sanitation	650,000	250,000	150,000		(250,000)	0	(250,000)
Culture and recreation	450,000	200,000			(250,000)	0	(250,000)
Interest on long-term debt	60,000				(60,000)	0	(60,000)
Total governmental activities	$3,700,000	$ 0	575,000	$220,000	$(2,905,000)		$(2,905,000)
Business-type activities:							
Water and sewer system	$1,500,000	$1,800,000	$ 0		$ 0	$ 300,000	$ 300,000
Parking system	45,000	40,000	0		0	(5,000)	(5,000)
Total business-type activities	$1,545,000	$1,840,000	$ 0		$ 0	$ 295,000	$ 295,000
Total primary government	$5,245,000	$2,415,000	$220,000		$(2,905,000)	$ 295,000	$(2,610,000)
Property taxes					$ 2,500,000		$ 2,500,000
Sales taxes					2,000,000		2,000,000
Investment earnings						$ 30,000	30,000
Special item—gain on sale					140,000		140,000
Transfers between funds					(70,000)	70,000	0
Total general revenues					$ 4,570,000	$ 100,000	$ 4,670,000

Change in net assets	$ 1,665,000	$ 395,000	$ 2,060,000
Net assets—July 1, 20X7	1,400,000	2,500,000	3,900,000
Net assets—June 30, 20X8	$ 3,065,000	$2,895,000	$ 5,960,000

PROBLEM 11-10

(1) The basic financial statements in the new reporting model include both government-wide financial statements and fund financial statements. The government-wide financial statement presents the financial picture of Corona from an economic resources measurement focus using full accrual basis of accounting. Governmental and business-type activities are presented separately. The government-wide statements include all assets and all liabilities (including infrastructure assets and long-term debt). In addition, certain interfund activity and interfund payables and receivables have been eliminated. The fund financial statements include separate statements for each of the three categories of activities—governmental, proprietary, and fiduciary. The governmental activities statements present information from a current financial resources measurement focus using the modified accrual basis of accounting. The proprietary activities are presented from an economic resources measurement focus using the full accrual basis of accounting. The only fiduciary fund of Corona is an agency fund presented in a balance sheet. In addition to the examples shown in the text, the financial section includes the auditors' opinion and detailed notes and supplementary information. Corona has no fiduciary funds and no permanent funds.

(2) The management's discussion and analysis is a requirement in the new reporting model. It provides an overview of the city's financial activities for the fiscal year and is subject to audit. The MD&A provides an objective and easily readable analysis of the government's financial activities based on currently known facts, conditions, or decisions. The focus is on the primary government. There are eight specific requirements for the MD&A as listed in the text. No additional information can be included. Governments can, however, provide as much detail as they wish about the required information. The MD&A differs from the letter of transmittal. The letter of transmittal is optional; governments can choose any format to communicate information. It provides a forum for government officials to discuss plans and other information that may not meet the "currently known facts, conditions, or decisions" criteria for the MD&A.

(3) Budgetary comparison information is reported as required supplementary information. A description of the annual budget, comparison of departmental expenditure totals from prior years, and a budgetary comparison schedule with original, final, and actual amounts (and a variance column) are included.

(4) Major governmental funds: Development Special Revenue, Redevelopment Debt Service, Assessment District Debt Service, Public Financing Authority, Community Facilities District, Redevelopment Capital Projects

Corona uses the GASB Statement No. 34 criteria for determining major funds—meeting the test of 10% of total governmental assets, liabilities, revenues, or expenditures, and at least 5% of the corresponding total for all governmental and enterprise funds. In addition, certain funds are presented as major funds because the city believes the financial position and activities of these funds are significant to the city as a whole. These are Development Special Revenue, Redevelopment Debt Service, Community Facilities District, and Redevelopment Capital Projects.

Nonmajor governmental funds (found on the combining statements):

Special revenue: Traffic Safety, Gas Tax, Measure, Trip Reduction, Airport, Asset Forfeiture, Residential Refuse, Landscape and Street Light Maintenance District, Redevelopment, Parking Authority

Problem 11-10, Concluded

Debt service: General Obligation, Public Improvement Corporation

Capital projects: Housing and Community Development, Planned Local Drainage, Assessment Districts, Other Grants

Permanent funds: none

(5) Corona is using the modified approach for city streets infrastructure capital assets. It manages these assets using an asset management system, including an up-to-date inventory, conditional assessments using a measurement scale, and estimated annual maintenance at the established condition assessment level. It documents that the infrastructure assets are being preserved approximately at or above the established condition index.

PROBLEM 11-11

(1) The measurement focus for governmental funds is financial resources, and the basis of accounting for governmental funds statements is modified accrual. The proprietary and fiduciary fund statements adopt economic resources as the measurement focus and use the full accrual accounting basis. The government-wide statements measure economic resources and report activities using full accrual accounting for both governmental and business-type activities.

(2) Differences between fund financial statements and government-wide statements:

	Fund Statements	Government-Wide Statements
Component units	Only blended component units are included.	Both blended and discretely presented component units are included.
Fiduciary funds	Separate fiduciary fund statements include a statement of net assets and a statement of changes in net assets.	Fiduciary funds are not included.
Internal service funds	Internal service funds are included in the proprietary fund statements.	Internal service funds are included in governmental activities.

(3) The three net asset categories found in the statement of net assets:

Invested in capital assets, net of related debt	Fixed assets of the government less all fixed asset-related debt (current and noncurrent)
Restricted	Externally restricted assets less any liabilities payable from these restricted assets
Unrestricted	Difference between the remaining assets and liabilities as well as reclassified restricted assets

PROBLEM 11-12

(1) Major programs for the audit will include Programs 1, 3, and 5. These three programs are identified due to their size and risk assessment. They represent more than 40% of the total federal assistance expenditures.

(2) If Program 2 were to be assessed as high risk, then the audit would be focused on Programs 1 and 2 only.

CHAPTER 12

UNDERSTANDING THE ISSUES

1. Separating the accounting for current activities into restricted and unrestricted funds allows for detailed reporting of resources and spending. This is often done to satisfy donors and/or grantors who required detailed reporting of inflows and outflows. In addition, the information generated assists in the overall financial reporting that requires net assets to be shown as restricted, temporarily restricted, and permanently restricted.

2. Users of not-for-profit financial information are interested in the fair value of investments regardless of their trading status. Not-for-profits, particularly foundations and pension plans, have large portfolios. Up-to-date information on the status of investments in these portfolios is necessary for donors, governments, and other grantors in their funding decisions. Thus, FASB Statement No. 124 does not differentiate among investment categories.

3. Public support captures all forms of donations to a not-for-profit organization, including direct contributions of all types (cash, assets, services, reduced liabilities, free rent, reduced rates, etc.), net proceeds from fund-raising events, gifts from legacies and bequests, and indirect giving from umbrella charitable campaigns, e.g., United Way. Revenue captures amounts earned from exchange transactions—where both parties gain and something of value is given or returned. Examples of revenue are dues and subscriptions, membership fees, proceeds from the sale of goods or services, and realized and unrealized earnings from investments.

4. A contribution is a nonreciprocal transaction where one part gives something of value and does not expect something in return. An agency transaction is where one party gives something of value to an intermediary organization (e.g., a foundation) that receives this gift on behalf of another organization. In the first example, revenue is recorded at the fair value of the contribution. In the second example, a liability to the ultimate recipient is recorded.

5. A VHWO must include a statement of functional expense as part of its financial statements in order to detail the total expenses in each program and supporting services reported on the statement of activities. This allows users of the financial statements, including donors, potential donors, grantors, lenders, and governments, to better evaluate spending and identify detailed expense patterns by program.

6. In order for the government grant to be a contribution, the grantor may not receive anything of value from the use of the funds by the receiving organization. If something of value is given in return for the grant, the grant is an exchange transaction that will recognize an equal amount of earned revenue when expenses are made in accordance with the provisions of the grant. This distinction is important in private universities since under FASB 116 only a contribution can be restricted. It is less important in public universities where both contributions and grants are considered restricted revenues.

7. Assets limited as to use are not restricted, merely board (or internally) designated. Only a donor can impose a restriction per FASB Statement No. 116.

8. A hospital will bill out to all types of patients (with and without insurance and with different types of insurance coverage) the same amount. This adherence to gross revenue determination is designed to get the maximum revenue to cover costs. Adjustments are then determined in the contractual negotiations with HMOs and other insurance providers. Medicare and Medicaid reimbursements are considerably lower than most hospital gross revenues due to formulas that average cost reimbursement across all of the rural and urban hospitals in the United States.

9. Accounting for medical malpractice claims is of special concern to health care organizations because of the potential for very large expenses and the inability to fully insure against the risk of loss. Accounting for medical malpractice claims is similar to accounting for contingencies. "… costs should be accrued when the incidents occur that give rise to the claims if it can be determined that it is probable that the liabilities have been incurred and if the amounts of the losses can be reasonably estimated." This basic rule applies to both claims that have occurred and incidents that have occurred but have not yet been reported as of the balance sheet date.

EXERCISES

EXERCISE 12-1

Note to Instructor: You might wish to have students look for information on not-for-profit organizations in your community and compare what links, if any, are found to state or national organizations (both foundations and not-for-profit centers or portals).

EXERCISE 12-2

(1) C There is a permanent restriction on this donation.

(2) B Income from a permanent endowment is classified as temporarily restricted or permanently restricted, depending on the donor stipulation.

(3) A If there is no law regarding recognition of unrealized gains/losses, an organization may recognize them as unrestricted if they occur in the same period as the restrictions are met, consistent with the organization's policy of recognizing all contributions as unrestricted if donated in the same period restrictions are met.

(4) B Investment income from donor-restricted permanent endowments is recognized as temporarily restricted if the donor restricts the income as to use or specific time period.

(5) B The gain is not permanently restricted unless there is a donor stipulation or legal requirement. The income is temporarily restricted because it is to be expended in a future period.

EXERCISE 12-3

(a) The measurement focus of state and local government's government-type activities is flows of financial resources; whereas the measurement focus of voluntary health and welfare organizations (VHWO) is flows of economic resources. Some financial activities of a government, such as those of operating a utility, may be better reported (i.e., the financial information may be more useful) using a flows of economic resources measurement focus given their similarity to business enterprises where goods and services are provided for fees. For these operations, governments use the accrual basis of accounting. The financial activities of a VHWO, on the other hand, are more similar to government-type activities where the relationship between revenues and costs of goods and services provided is vague. Were VHWOs under the jurisdiction of the GASB, they would be included under the standard guiding them to use the flows of financial resources measurement focus and to report revenues and expenditures on an accrual basis. Financial reporting standards for VHWOs, however, under the auspices of the FASB, require VHWOs to use the flows of economic measurement focus and accrual basis of accounting.

Exercise 12-3, Concluded

(b) State and local governments present revenues and expenditures for the governmental funds separate from the proprietary funds. In addition, government-wide financial statements are prepared. VHWOs are not required to report their activities by funds. Financial reporting for organization-wide activities of both governments and VHWOs includes a statement of activities and a statement of net assets (called the statement of financial position for VHWOs).

(c) Depreciation expense is reported in the statement of activities of a government. Accumulated depreciation is reported in the statement of net assets. VHWOs report depreciation expense in the statement of activities and accumulated depreciation in the statement of financial position.

(d) A voluntary health and welfare organization may use a separate fund to account for fixed assets called the Plant Fund or Land, Building, and Equipment Fund.

If capital assets are purchased by the Plant Fund, the usual entry is made:

Land, Building, and Equipment	xxx	
Cash or Some Payable		xxx

The purpose of a voluntary health and welfare organization is to provide a service to the community. Because there are usually numerous voluntary health and welfare organizations competing for donations, it is only proper that donors be able to evaluate the cost of the services provided in an effort to see which organizations use donations most efficiently. The use of fixed assets in an organization represents a cost of providing a service, and so it is appropriate for a voluntary health and welfare organization to show depreciation as a cost of providing its service to the community.

The Land, Building, and Equipment Fund records any gain or loss on the sale of fixed assets as revenue of the fund. If the proceeds of the sale are not legally required to be reinvested in fixed assets, the funds should be transferred to the unrestricted fund by entries reflected as direct additions and reductions to the respective fund balances.

Governmental units, on the other hand, do not create a separate fund for fixed assets. If fixed assets are acquired for use in a trust, enterprise, or internal service fund, these assets are included within the fund and depreciated in a similar manner and for the same purpose as in a commercial enterprise.

If fixed assets are acquired for use by a fund other than the above funds within a governmental unit, the assets are recorded in the general fixed assets account group (not a fund). The general fixed assets account group is a memorandum record of fixed assets maintained for stewardship purposes only.

In governmental accounting, except in the three types of funds mentioned earlier, the cost of a fixed asset is matched against revenues in the period of acquisition. This is done to reflect the outflow of funds (stewardship concept) within a given period. Because the cost of the fixed asset is matched with revenues in this manner, depreciation is not necessary.

EXERCISE 12-4

Supporting schedule

	Drug Rehabilitation	Alcohol Recovery	Weight Control	Fund Raising	General and Administrative	Total Amount
Secretarial salary	$ 0	$ 0	$ 0	$ 0	$ 5,000	$ 5,000
Office supplies	1,200	600	600	600	3,000	6,000
Printing	800	800	1,600	4,000	800	8,000
Depreciation	800	800	800	0	1,600	4,000
Instruction	2,700	2,250	3,150	900	0	9,000
Rent	3,000	2,000	3,000	0	2,000	10,000
Total	$8,500	$6,450	$9,150	$5,500	$12,400	$42,000

Better Life Clinic
Statement of Activities
For Year Ended December 31, 20X0

	Unrestricted	Temporarily Restricted	Total All Funds
Public support and revenue:			
Public support	$ 35,000		$ 35,000
Revenue	12,000		12,000
Net assets released from restriction:			
Satisfaction of equipment acquisition restrictions	4,000	$ (4,000)	0
Total public support and revenues	$ 51,000	$ (4,000)	$ 47,000
Expenses:			
Program services:			
Drug rehabilitation	$ 8,500		$ 8,500
Alcohol recovery	6,450		6,450
Weight control	9,150		9,150
Total program services	$ 24,100		$ 24,100
Supporting services:			
General and administrative	$ 12,400		$ 12,400
Fund raising	5,500		5,500
Total supporting services	$ 17,900		$ 17,900
Total expenses	$ 42,000		$ 42,000
Change in net assets	$ 9,000	$ (4,000)	$ 5,000
Net assets, January 1, 20X0	12,000	30,000	42,000
Net assets, December 31, 20X0	$ 21,000	$26,000	$ 47,000

EXERCISE 12-5

(1)	Cash	9,000	
	Revenue—Dues		9,000
	To record receipt of membership dues.		
(2)	Cash	22,000	
	Pledges Receivable	32,000	
	Contributions—Unrestricted		54,000
	To record cash and pledges received.		
(3)	Provision for Uncollectible Pledges	3,200	
	Allowance for Uncollectible Pledges		3,200
	To provide for uncollectible pledges.		
(4)	Cash	12,000	
	Special Events Support		12,000
	To record gross revenues from the fund-raising dinner.		
	Cost of Special Events	6,500	
	Cash		6,500
	To record payment of costs.		
(5)	Car for Resale	75,000	
	Contributions—Temporarily Restricted		75,000
	To record the receipt of a classic car to be auctioned next period.		
(6)	Cash ($70,000 – $20,000)	50,000	
	Pledges Receivable	30,000	
	Fund-Raising Expense	20,000	
	Contributions—Unrestricted		100,000
	To record result of professional fund-raising group.		
	Provision for Uncollectible Pledges	1,500	
	Allowance for Uncollectible Pledges		1,500
	To record estimated uncollectibles at 5% of gross of $30,000.		

EXERCISE 12-6

(1)	Cash	10,000	
	Contributions—Temporarily Restricted		10,000
	To record contribution to be used when building addition is completed.		

Exercise 12-6, Concluded

(2)	Cash	10,000	
	Accumulated Depreciation	9,000	
	Land, Building, and Equipment		17,000
	Gain on Sale of Plant Assets—Unrestricted		2,000
	To record sale of equipment.		
(3)	Depreciation Expense	9,000	
	Accumulated Depreciation		9,000
	To record depreciation expense.		
(4)	Land, Building, and Equipment	12,000	
	Accounts Payable (or Vouchers Payable)		12,000
	To record purchase of equipment, terms n/30.		
	Reclassification Out—Temporarily Restricted— Satisfaction of Equipment Acquisition	12,000	
	Reclassification In—Unrestricted—Satisfaction of Equipment Acquisitioned		12,000
(5)	Accounts Payable (or Vouchers Payable)	12,000	
	Cash		12,000
	To record payment.		

EXERCISE 12-7

(1)	Cash	200,000	
	Legacies and Bequests—Permanently Restricted		200,000
	To record legacy received.		
	Endowment Investments	200,000	
	Cash		200,000
	To record investment in 8% bonds.		
(2)	Cash	103,500	
	Investments		100,000
	Gain on Sale of Endowments—Unrestricted		1,000
	Investment Revenue—Temporarily Restricted		2,500
	To record sale of $50,000 of bonds plus $2,500 interest.		
(3)	Cash	6,000	
	Investment Revenue—Unrestricted		6,000
	To record unrestricted earnings on endowments.		
(4)	Increase in Carrying Value	3,500	
	Unrealized Gain in Investments—Unrestricted		3,500

EXERCISE 12-8

(1) a Recognized in period made.

(2) b Recognized in period received. Restriction released either (1) when asset is placed in service or (2) over its useful life.

(3) a Recognized in period received.

(4) b Recognized in period received. Restriction is released when expenses are incurred.

(5) a Donated services of a skilled nature that would otherwise be purchased.

(6) f Not skilled services. May be footnoted.

(7) a Record at present value at time promise to give is received.

(8) c Endowment principal cannot be spent. Earnings are unrestricted.

(9) f Recognize when conditions are met.

(10) a Record at fair value when received.

(11) b Recognize in period received. Restriction is released when expenses are incurred.

(12) b Recognize in period received. Restriction is released when time restriction is satisfied.

(13) d Recognize revenue as expenses are incurred for research project.

(14) b Recognize in period received. Restriction is released either (1) when asset is placed in service or (2) over useful life of asset.

(15) a, b, or f (If collection is displayed to the public or otherwise held for exhibit, the university is not required to recognize contributions as revenue.)

EXERCISE 12-9

(a) Patient service revenues include charges to patients for routine services, nursing services, and professional services.

Other operating revenues include revenue from services other than health care provided to patients as well as from sales and services to persons other than patients.

Nonoperating revenues are primarily from gifts, grants, and investment income and gains that are peripheral or incidental to the major operation of the hospital.

(b)

1. OO	4. PS	7. OO	10. PS
2. N	5. N	8. PS	11. N
3. PS	6. N	9. OO	

EXERCISE 12-10

(a)	Accounts Receivable	1,010,000	
	Patient Service Revenue		1,010,000
	To record billings.		
(b)	Inventory	12,000	
	Other Operating Revenue—Unrestricted (contributions)		12,000
	To record donation of drugs from doctor.		
(c)	Cash	28,800	
	Other Operating Revenue—Unrestricted		28,800
	To record cash revenues.		
(d)	Charity Services	13,000	
	Accounts Receivable		13,000
	To record charity allowance.		
(e)	Contractual Adjustments	68,000	
	Accounts Receivable		68,000
	To record adjustments for Medicare charges.		
(f)	Provision for Bad Debts	26,000	
	Allowance for Uncollectible Receivables		26,000
	To record increase in allowance.		

EXERCISE 12-11

Pure Air Rehabilitation Hospital
Statement of Activities
For Year Ended December 31, 20X7

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
Patient service revenue (net of $26,000 contractual adjustments)	$ 714,000			$ 714,000
Other operating revenue:				
Seminar income	$ 23,000			$ 23,000
Child day care income	15,000			15,000
Parking fees	4,500			4,500
Total other operating revenue	$ 42,500			$ 42,500
Total operating revenues	$ 756,500			$ 756,500
Operating expenses:				
Nursing services	$ 230,000			$ 230,000
Professional fees	340,000			340,000
General and administrative	150,000			150,000
Depreciation expense	90,000			90,000
Interest expense	13,000			13,000
Repairs and maintenance	110,000			110,000
Provision for uncollectibles	14,000			14,000
Total operating expenses	$ 947,000			$ 947,000
Loss from operations	$(190,500)			$ (190,500)
Nonoperating revenue:				
Interest income	$ 3,000			$ 3,000
Contributions		$ 18,000		18,000
Endowment income		120,000		120,000
Gains on sale of investments		56,000	$ 0	56,000
Total nonoperating revenue	$ 3,000	$194,000	$ 0	$ 197,000
Change in net assets	$(187,500)	$194,000	$ 0	$ 6,500
Net assets, January 1, 20X7	800,000	755,000	750,000	2,305,000
Net assets, December 31, 20X7	$ 612,500	$949,000	$750,000	$2,311,500

EXERCISE 12-12

(1) E A designation is not the same as a donor-imposed restriction. The designated assets stay in the unrestricted net asset category.

(2) A Income from board-designated assets is unrestricted.

(3) C The restricted donation is an increase in temporarily restricted net assets.

(4) A The purchase of a building releases the restriction in entry (3).

(5) A This donated service is recognized as unrestricted revenue and expenses because it requires specialized skills and would have to be purchased if it were not donated.

(6) D The donated assets are permanently restricted; income will be temporarily restricted.

PROBLEMS

PROBLEM 12-1

(1) b Rather than requiring restricted contributions to first be classified as restricted and then "released" as the restrictions are met, this exception is allowed if both happen in the same reporting period.

(2) b If a donor receives something of value in exchange, then the transaction is not a contribution.

(3) b All contributions are valued at fair value.

(4) b Contributed services must be provided by persons possessing specialized skills that would need to be purchased if not donated. There is no licensing requirement.

(5) d Donated works of art, historical treasures, or similar objects that are *not* held for public inspection, education, or research and are not subject to the provision that all proceeds from their sale be used to acquire other items for the collection *must* be capitalized.

PROBLEM 12-2

(1) c Amounts received (or promised) and restricted for future periods are recorded as public support—temporarily restricted.

(2) d Fund raising and administrative and general expenses are classified as supporting services.

(3) a Amounts not available to spend until 20X6 are classified as temporarily restricted.

(4) a Contributions are $500,000 shown in the statement of activities as follows:

Public support:	
Contributions—unrestricted.....	$500,000

The $60,000 provision for uncollectible pledges is considered an expense.

(5) c Printing an annual report is an administrative function.

(6) c The asset would be recorded at fair value, which would become the basis for depreciation computation.

PROBLEM 12-3

(1) a Depreciation expense is recorded and allocated to program and support services.

(2) b Management and general expenses are part of supporting services.

(3) b To be recognized as donated services, the service must be of a skilled nature and purchased by the organization if not provided by volunteers.

(4) c Both unrestricted and restricted contributions are recognized in the period made.

(5) b If no bona fide program exists, all costs are reported as fund raising.

PROBLEM 12-4

(1) e Both are recorded as a contribution increasing public support in the period received. The endowment is classified as permanently restricted. The donation for the child care center is temporarily restricted until spent on the donor-specified purpose.

(2) b The contributions have not yet been expended. They are part of resources and temporarily restricted for acquisition of fixed assets. Restrictions are released either (1) when fixed assets are acquired or (2) over the useful life of the asset to match depreciation.

(3) a The entry given is the typical journal entry to record board-designated intentions for future actions. Because the entry debits Unrestricted Net Assets—Undesignated, the unrestricted net asset class has been internally designated, not externally donor-restricted.

(4) d Not-for-profit organizations may choose to record unrealized gains/losses on marketable securities in a separate account, Net Increases (or Decreases) in Carrying Value of Investments.

(5) d When investments are carried at fair value, changes in total fair value are recorded periodically in Net Decrease (Increase) in Carrying Value of Investments, which is shown in the revenue section of the statement of activities. These (losses) gains may be unrestricted, temporarily restricted, or permanently restricted.

PROBLEM 12-5

(1) Event

(a)	Accounts Receivable	2,200,000	
	Patient Service Revenue		2,200,000
	Provision for Uncollectible Accounts Receivable	92,000	
	Allowance for Uncollectibles and Contractual Adjustments		92,000
	Contractual Adjustments	120,000	
	Allowance for Uncollectibles and Contractual Adjustments		120,000
(b)	Allowance for Uncollectibles and Contractual Adjustments	60,000	
	Accounts Receivable		60,000
(c)	Investments	75,000	
	Contributions—Temporarily Restricted		75,000
(d)	Furniture	37,000	
	Cash		37,000
(e)	Assets Whose Use Is Limited—Cash	50,000	
	Cash		50,000
	Note: No outside restriction exists. An additional entry to designate the unrestricted net assets may also be recorded:		
	Unrestricted Net Assets	50,000	
	Unrestricted Net Assets—Designated		50,000
(f)	Cash	20,000	
	Pledges Receivable	60,000	
	Nonoperating Revenue—Unrestricted Contributions		80,000
	Provision for Uncollectible Pledges	6,000	
	Allowance for Uncollectible Pledges		6,000
	Reclassification Out—Temporarily Restricted—Expiration of Time Restrictions	10,000	
	Reclassification In—Unrestricted—Expiration of Time Restrictions		10,000
(g)	Plant and Equipment	250,000	
	Accounts Payable		250,000

Problem 12-5, Concluded

(h)	Nursing Services Expenses	1,120,000	
	Dietary Services Expenses	230,000	
	Maintenance Services Expenses	115,000	
	Administrative Services Expenses	285,000	
	Interest Expense	160,000	
	Depreciation Expense	60,000	
	Cash		1,657,000
	Accounts Payable (or Accrued Expenses)		253,000
	Allowance for Depreciation		60,000
	Reclassification Out—Temporarily Restricted—Satisfaction of Equipment Acquisition Restrictions	20,000	
	Reclassification In—Unrestricted—Satisfaction of Equipment Acquisition Restrictions		20,000

(2)

Aires Nursing Home, Inc.
Statement of Activities
For Year Ended December 31, 20X7

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
Patient service revenue (net of $120,000 contractual adjustments)	$2,020,000			$2,020,000
Net assets released from restrictions:				
Satisfaction of equipment acquisition restrictions (depreciation)	20,000	$(20,000)		0
Expiration of time restrictions (term endowment expired)	10,000	(10,000)		0
Total revenue and other support	$2,050,000	$(30,000)		$2,020,000
Operating expenses:				
Nursing services	$1,120,000			$1,120,000
Dietary services	230,000			230,000
Maintenance services	115,000			115,000
Administrative services	285,000			285,000
Interest expenses	160,000			160,000
Depreciation	60,000			60,000
Provision for uncollectible patient accounts	92,000			92,000
Provision for uncollectible pledges	6,000			6,000
Total operating expenses	$2,068,000	$ 0	$	0 $2,068,000

Loss from operations	$ (18,000)	$ (30,000)	$ (48,000)	
Contributions	80,000	75,000	$ 0	155,000
Change in net assets	$ 62,000	$ 45,000	$ 0	$ 107,000

PROBLEM 12-6

(a)	Land, Building, and Equipment	200,000	
	Cash		40,000
	Mortgage Payable		160,000
	To record purchase of land and building.		
(b)	Land, Building, and Equipment	9,000	
	Accounts Payable		9,000
	To record purchase of office furniture on open account.		
(c)	Land, Building, and Equipment	4,000	
	Contributions—Temporarily Restricted		4,000
	To record donation of partitions and increase in temporarily restricted net assets.		
(d)	Mortgage Payable	10,000	
	Interest Expense (14% × $160,000)	22,400	
	Cash		32,400
	To record payment of mortgage interest and payment on principal.		
(e)	Cash	1,800	
	Accumulated Depreciation	2,000	
	Land, Building, and Equipment		3,000
	Miscellaneous Revenue (or Gain on Sale of Plant Assets)—Unrestricted		800
	To record sale of office equipment.		
(f)	Accumulated Depreciation	7,000	
	Land, Building, and Equipment		7,000
	To remove fully depreciated asset.		
(g)	Depreciation Expense	46,000	
	Accumulated Depreciation		46,000
	To record annual depreciation.		
	Reclassification Out—Temporarily Restricted Satisfaction of Equipment Acquisition Restrictions	20,000	
	Reclassification In—Unrestricted Satisfaction of Equipment Acquisition Restrictions		20,000
	To record expiration of restriction to match depreciation expenses over life of asset.		
(h)	Land, Building, and Equipment	50,000	
	Cash		50,000
	To record theater installation. Reclassification of temporarily restricted net assets will occur over life of asset.		

PROBLEM 12-7

(1)	Pledges Receivable	800,000	
	Contributions—Unrestricted		800,000
	Cash	95,000	
	Contributions—Temporarily Restricted		95,000
	Pledges Receivable	50,000	
	Contributions—Temporarily Restricted		50,000
	Assets Restricted to Long-Term Investment	1,000	
	Contributions—Permanently Restricted		1,000
(2)	Cash	470,000	
	Pledges Receivable		470,000
(3)	Cash	35,000	
	Special Events Support—Unrestricted		12,000
	Legacies and Bequests—Unrestricted		10,000
	Membership Dues—Unrestricted		8,000
	Investment Revenue—Unrestricted		5,000
(4)	Medical Services Program	60,000	
	Community Information Services Program	15,000	
	Vouchers Payable		75,000
(5)	Management and General Services	150,000	
	Fund-Raising Services	200,000	
	Vouchers Payable		350,000
(6)	Buildings and Equipment	18,000	
	Cash		18,000
	Reclassification Out—Temporarily Restricted—Satisfaction of Equipment Acquisition in Restrictions	18,000	
	Reclassification In—Unrestricted—Satisfaction of Equipment Acquisition Restrictions		18,000
(7)	Depreciation Expense	15,000	
	Accumulated Depreciation		15,000
	Medical Services Program	4,000	
	Community Information Services Program	3,000	
	Fund-Raising Services	2,000	
	Management and General Services	6,000	
	Depreciation Expense		15,000
(8)	Vouchers Payable	330,000	
	Cash		330,000

PROBLEM 12-8

(1) Total of allocable operating expenses financed by donor-restricted contributions:

Salaries and payroll taxes	$ 23,000
Telephone and miscellaneous	2,000
Nursing and medical fees	50,000
Educational seminars	20,000
Research	16,000
Medical supplies	22,000
Rent	10,000
Total	$143,000

Allocation of total operating expenses:

60% to Alcohol and Drug Abuse Program	$ 85,800
40% to Outreach to Teens Program	57,200
Total allocated to programs	$143,000

Journal entry:

Alcohol and Drug Abuse Program	85,800	
Outreach to Teens Program	57,200	
Salaries and Payroll Taxes		23,000
Telephone and Miscellaneous Expenses		2,000
Nursing and Medical Fees		50,000
Educational Seminars Expenses		20,000
Research Expense		16,000
Medical Supplies Expense		22,000
Rent Expense		10,000

To assign allocable operating expenses to programs and to close expense accounts.

(2)

Caring Clinic
Allocation of Expenses Financed by Unrestricted Resources
For Year Ended December 31, 20X7

		Programs		Supporting Services	
Expense Allocated	Total Amount	Alcohol and Drug Abuse	Outreach to Teens	Manage-ment	Fund Raising
Salaries and payroll taxes	$ 63,000	$ 18,900	$ 12,600	$18,900	$12,600
Telephone and miscellaneous	10,000	2,000	2,000	1,500	4,500
Nursing and medical fees	70,000	49,000	21,000		
Educational seminars	46,000	13,800	27,600		4,600
Research	137,000	82,200	54,800		
Medical supplies	65,000	58,500	6,500		
Provision for uncollectible pledges	26,000				26,000
Total expenses	$417,000	$224,400	$124,500	$20,400	$47,700

Problem 12-8, Concluded

(3)	Alcohol and Drug Abuse Program	224,400	
	Outreach to Teens Program	124,500	
	Management and General Services	20,400	
	Fund-Raising Services	47,700	
	Salaries and Payroll Taxes		63,000
	Telephone and Miscellaneous Expenses		10,000
	Nursing and Medical Fees		70,000
	Educational Seminars Expenses		46,000
	Research Expense		137,000
	Medical Supplies Expense		65,000
	Provision for Uncollectible Pledges		26,000
	To assign allocable operating expenses financed by unrestricted funds to program and support services and to close expense accounts.		

(4)	Alcohol and Drug Abuse Program	12,000	
	Outreach to Teens Program	2,400	
	Management and General Services	7,200	
	Fund-Raising Services	2,400	
	Interest Expense		4,000
	Depreciation Expense		20,000
	To allocate expenses relating to plant on the basis of the percentages given (50/10/30/10) and to close expenses.		

PROBLEM 12-9

Caring Clinic
Statement of Functional Expenses
For Year Ended December 31, 20X7

		Program Services			Supporting Services**		
	Total All Funds	Alcohol and Drug Abuse	Outreach to Teens	Total Programs	Manage-ment	Fund Raising	Total Supporting
Salaries and payroll taxes*	$ 86,000	$ 32,700	$ 21,800	$ 54,500	$18,900	$12,600	$31,500
Telephone and miscellaneous expenses	12,000	3,200	2,800	6,000	1,500	4,500	6,000
Nursing and medical fees	120,000	79,000	41,000	120,000			
Educational seminars expenses	66,000	25,800	35,600	61,400		4,600	4,600
Research expense	153,000	91,800	61,200	153,000			
Medical supplies expense	87,000	71,700	15,300	87,000			
Rent expense (60/40 to programs)	10,000	6,000	4,000	10,000			
Interest expense (50/10/30/10)	4,000	2,000	400	2,400	1,200	400	1,600
Provision for uncollectible pledges	26,000					26,000	26,000
Total before depreciation expense	$564,000	$312,200	$182,100	$494,300	$21,600	$48,100	$69,700
Depreciation expense (50/10/30/10)	20,000	10,000	2,000	12,000	6,000	2,000	8,000
Total expenses†	$584,000	$322,200	$184,100	$506,300	$27,600	$50,100	$77,700
*Each of the first six expenses has its allocation determined using the process illustrated for salaries:							
From unrestricted resources (Use solution of Problem 12-8 or percentage allocations in Problem 12-8.)	$ 63,000	$ 18,900	$ 12,600	$ 31,500	$18,900	$12,600	$31,500
From donor-restricted contributions (split 60/40 to programs only)	23,000	13,800	9,200	23,000			

Total	$ 86,000	$ 32,700	$ 21,800	$ 54,500	$18,900	$12,600	$31,500

**Because no part of the expenses funded by donor-restricted resources was allocated to supporting services, the portion assigned to supporting services consists only of the allocated expenses funded by unrestricted revenues as shown in the solution to Problem 12-8 or determined by use of the percentages stated in that problem.

†The total expenses assigned to the individual programs and supporting services must agree with those shown in the statement of activities.

PROBLEM 12-10

(1) a Tuition remissions and scholarships are student aid expenditures.

(2) b The rate of pay normally commanded by a paid person performing a given function would serve as the measurement basis for the amount. Because they regularly contribute their services, the employer-employee relationship would seem to exist.

(3) b Assets – Liabilities = Fund balance.

(4) a Revenue is recognized when contributions are received. Restricted gifts and contributions are reclassified as unrestricted when expended for donor-specified purposes.

(5) c The $100,000 is only a restriction within the current unrestricted fund and is not externally imposed.

(6) b It is the amount received by the unrestricted current fund and the amount expended in the restricted current fund.

(7) a All of the items result in plant fund balances.

(8) a Institutional support expenditures are those of central administration. Scholarships and fellowships are expenditures—student aid. The $200,000 is expenditures—operation and maintenance of plant.

(9) b Board designation does not create an endowment or restriction.

(10) d A public university engaged only in business-type activities may report under GASB 34 as a proprietary fund.

PROBLEM 12-11

(1) a Endowment income is recognized in the endowment fund. A transfer to another fund will occur, depending on donor-stipulation as to use.

(2) a A private university will use full accrual accounting and may continue to use fund accounting.

(3) a Nonexpendable contributions are permanently restricted.

(4) c Only nonexpendable principals are permanently restricted. The term endowment is temporarily restricted. The designation is not externally restricted and is classified as unrestricted.

(5) b The earnings from board designated assets are unrestricted. Only a donor can contribute to a fund for donor-specified expenses.

(6) c Since Oak Private College is not the trustee, contribution revenue is recognized only when income is due (or received).

(7) b Net assets = Total assets – Total liabilities.

(8) c Only donors can restrict funds. Assets held at the discretion of the board are unrestricted.

(9) b Fuel for the power plant is part of operating expenses (operation and maintenance of plant). Equipment is capitalized in the plant funds.

(10) b The three financial statements for private universities are the statement of financial position, the statement of activities, and the statement of cash flows.

PROBLEM 12-12

(1) d Because the assets are not under the control of the hospital, they should not appear in the hospital's financial statements.

(2) a Report as unrestricted nonoperating revenue at fair value.

(3) c To reduce the portfolio value from $290,000 to $250,000 one year later, the valuation contra-account must be increased by $40,000.

(4) a Both board-designated funds and plant assets are part of the unrestricted net assets of the hospital. Restrictions by outsiders have been "released."

(5) a Charity allowances and discounts are contra-revenue accounts.

(6) d Donated goods and services are not recorded unless they would have otherwise been purchased and are of a skilled nature.

(7) b Goods and services that otherwise would be purchased are recorded as other operating revenue.

(8) b To meet GAAP, reporting must be on the accrual basis.

(9) c The $300,000 is part of unrestricted net assets because there are no external donor-restrictions on the use of the funds.

(10) a For hospitals, property, plant, and equipment and their related liabilities are within the unrestricted or temporarily restricted (if donated) net asset classes.

PROBLEM 12-13

(1) a Inventory donated is used for the hospital's principal operations.

(2) b This is revenue from sales or services to persons other than patients.

(3) d All of the third-party reimbursements are unrestricted revenue.

(4) a The release of restrictions will be reported as operating expenses are incurred.

(5) c This is an internal designation of unrestricted resources. Only donor-imposed restricted contributions are temporarily or permanently restricted.

(6) c FASB Statement No. 117 requires a statement of financial position, statement of activities, and a statement of cash flows.

(7) b The fair value of the gift is considered an unrestricted revenue.

(8) d Only donor-imposed external stipulations are restrictions.

(9) d Earnings are available for expenditure but must be spent on specific items.

(10) b Only donor-imposed external stipulations are restrictions.

PROBLEM 12-14

(1)

Bayfield Community Health Care Association
Statement of Activities
For Year Ended June 30, 20X7

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
Public support and revenue:				
Public support:				
Contributions	$300,000	$15,000		$315,000
Annual auction proceeds (net of $11,000 expense)	31,000			31,000
Total public support	$331,000	$15,000	$ 0	$346,000
Revenue:				
Membership dues	$ 25,000			$ 25,000
Program service fees	30,000			30,000
Investment income	10,000			10,000
Endowment income		$20,000		20,000
Total revenue	$ 65,000	$20,000	$ 0	$ 85,000
Net assets released from restrictions:				
Satisfaction of program restrictions	$ 5,000	$ (5,000)		$ 0
Total public support, revenue, and other support	$401,000	$30,000	$ 0	$431,000
Expenses:				
Program services:				
Blind children	$150,000			$ 150,000
Deaf children	120,000			120,000
Supporting services:				
Management and general	51,000			51,000
Fund raising	9,000			9,000
Total expenses	$330,000	$ 0	$ 0	$330,000
Change in net assets	$ 71,000	$30,000	$ 0	$101,000
Net assets, July 1, 20X6	38,000	3,000	250,000	291,000
Net assets, June 30, 20X7	$109,000	$33,000	$250,000	$392,000

Problem 12-14, Concluded

(2)

Bayfield Community Health Care Association
Statement of Financial Position
June 30, 20X7

Assets:		
Cash	$	40,000
Pledges receivable (net of $3,000 allowance)		9,000
Bequest receivable		5,000
Accrued interest receivable		1,000
Long-term investments		140,000
Endowment investments		250,000
Total assets		$445,000
Liabilities:		
Accounts payable and accrued expenses	$	51,000
Refundable deposits		2,000
Total liabilities	$	53,000
Net assets:		
Unrestricted		$109,000
Temporarily restricted		33,000
Permanently restricted		250,000
Total net assets		$392,000
Total liabilities and net assets		$445,000

SPECIAL APPENDIX 1

UNDERSTANDING THE ISSUES

1. In order to record the shares acquired at fair value, the individual stockholder's residual interest must have increased and the new residual interest must be under 5%; or the stockholder's residual interest decreased and (a) the voting interest must be under 20%, (b) the individual supplied less than 20% of the company's total capital including debt, and (c) the new residual interest is less than 5%, and all the former owners whose ownership interest decreased must be under 20%.

Those shares not recorded at fair value are recorded at the simple-equity-adjusted cost of the owner.

2. When at least 80% of the consideration given is not monetary, the shares recorded at fair value are limited to the percentage of shares acquired for monetary consideration. Thus, if 90% of the shares were acquired from noncontrolling group stockholders, but the total monetary consideration given to all former owners was 70%, only 70% of the shares acquired from the former noncontrolling group could be recorded at fair value. The balance of the shares would be recorded at book value.

3. Eighty-five percent of the shares would be recorded at fair value on the date of the acquisition. Generally, the remaining shares would be recorded at their owner's simple-equity-adjusted cost. There are, however, exceptions for owners with a less than 5% interest that would allow the shares of the continuing stockholders to be recorded at current fair value.

EXERCISES

EXERCISE SA1-1

(1)	9,000 noncontrolling group shares at $40 market value*	$360,000
	1,000 controlling group shares at $25 equity-adjusted cost	25,000
	Total cost	$385,000

*80% test met: 9,000 ÷ 10,000 = 90% acquired for cash.

(2)	8,000 noncontrolling group shares at $40 market value*	$320,000
	2,000 controlling group shares at $25 equity-adjusted cost	50,000
	Total cost	$370,000

*80% test met: 8,000 ÷ 10,000 = 80% acquired for cash.

(3)	7,000 noncontrolling group shares at $40 market value*	$280,000
	2,000 noncontrolling group shares at $33 book value ($330,000 ÷ 10,000 shares)	66,000
	1,000 controlling group shares at $25 equity-adjusted cost	25,000
	Total cost	$371,000

*80% test not met: 7,000 ÷ 10,000 = 70% acquired for cash.

EXERCISE SA1-2

Calculation of cost:

7,000 noncontrolling group shares at $40 market value*	$280,000
2,000 noncontrolling group shares at $35 book value ($350,000 ÷ 10,000 shares)	70,000
1,000 controlling group shares at $38 equity-adjusted cost	38,000
Total cost	$388,000

*80% test not met: 7,000 ÷ 10,000 = 70% acquired for cash.

Determination and Distribution of Excess Schedule

70% Investment

Price paid for investment	$280,000
Less interest acquired:	
Equity ($350,000 × 70%)	245,000
	$ 35,000
Property, plant, and equipment ($30,000 × 70%)	21,000
Goodwill	$ 14,000

Determination and Distribution of Excess Schedule

10% Investment

Price paid for investment	$38,000
Less interest acquired:	
Equity ($350,000 × 10%)	35,000
	$ 3,000
Property, plant, and equipment ($30,000 × 10%)	3,000
Goodwill	$ 0

Hercules Corporation
Balance Sheet
January 1, 20X1

Assets		Liabilities and Stockholders' Equity	
Cash	$ 50,000	Long-term debt	$160,000
Inventory	100,000	Common stock (6,000 shares × $10)	60,000
Property and plant	224,000	Paid-in capital in excess of par [(1,000 × $28) + (2,000 × $25) + (3,000 × $30)]	168,000
Goodwill	14,000		
Total assets	$388,000	Total liabilities and equity	$388,000

PROBLEM

PROBLEM SA1-1

(1) Calculation of cost:

7,000 noncontrolling group shares at $50 fair value*	$350,000
2,000 noncontrolling group shares at $30.50 book value ($305,000 ÷ 10,000)	61,000
1,000 controlling group shares at $45 equity-adjusted cost	45,000
Total cost	$456,000

*80% test not met: 7,000 ÷ 10,000 = 70% acquired for cash. Only those shares acquired with monetary consideration may be recorded at fair value.

Determination and Distribution of Excess Schedule

70% Investment

Price paid	$350,000
Equity ($305,000 × 70%)	213,500
Excess of cost over book value (debit balance)	$136,500
Inventory ($20,000 × 70%)	(14,000)
Equipment ($25,000 × 70%)	(17,500)
Building ($80,000 × 70%)	(56,000)
Goodwill	$ 49,000

Determination and Distribution of Excess Schedule

10% Investment

Price paid	$45,000
Equity ($305,000 × 10%)	30,500
Excess of cost over book (debit balance)	$14,500
Inventory ($20,000 × 10%)	(2,000)
Equipment ($25,000 × 10%)	(2,500)
Building ($80,000 × 10%)	(8,000)
Goodwill	$ 2,000

Entries:

Cash	100,000	
Common Stock ($10 par)		40,000
Paid-In Capital in Excess of Par		60,000
To record formation of Newtone Corporation.		
Cash	250,000	
Bonds Payable		250,000
To record borrowing for the buyout.		

Problem SA1-1, Continued

Cash	60,000	
Inventory ($130,000 + $14,000 + $2,000)	146,000	
Accounts Receivable	40,000	
Equipment ($75,000 + $17,500 + $2,500)	95,000	
Building ($120,000 + $56,000 + $8,000)	184,000	
Land	30,000	
Goodwill	51,000	
Bonds Payable		150,000
Common Stock (6,000 shares × $10 par)		60,000
Paid-In Capital in Excess of Par [($45,000 + $61,000) – $60,000 par]		46,000
Cash		350,000
To record the acquisition of Oldtime.		

(2) Calculation of cost:

9,000 noncontrolling group shares at $50 fair value (includes 1,000 shares for 2,000 shares traded)*	$450,000
1,000 controlling group shares at $45 equity-adjusted cost	45,000
Total cost	$495,000

*80% test met: 8,000 ÷ 10,000 = 80% acquired for cash. All noncontrolling shares may be recorded at fair value.

Determination and Distribution of Excess Schedule

90% Investment

Price paid	$450,000
Equity ($305,000 × 90%)	274,500
Excess of cost over book value (debit balance)	$175,500
Inventory ($20,000 × 90%)	(18,000)
Equipment ($25,000 × 90%)	(22,500)
Building ($80,000 × 90%)	(72,000)
Goodwill	$ 63,000

Determination and Distribution of Excess Schedule

10% Investment

Price paid	$45,000
Equity ($305,000 × 10%)	30,500
Excess of cost over book value (debit balance)	$14,500
Inventory ($20,000 × 10%)	(2,000)
Equipment ($25,000 × 10%)	(2,500)
Building ($80,000 × 10%)	(8,000)
Goodwill	$ 2,000

Problem SA1-1, Concluded

Entries:

Cash	100,000	
Common Stock ($10 par)		40,000
Paid-In Capital in Excess of Par		60,000
To record formation of Newtone Corporation.		
Cash	300,000	
Bonds Payable		300,000
To record borrowing for the buyout.		
Cash	60,000	
Inventory ($130,000 + $18,000 + $2,000)	150,000	
Accounts Receivable	40,000	
Equipment ($75,000 + $22,500 + $2,500)	100,000	
Building ($120,000 + $72,000 + $8,000)	200,000	
Land	30,000	
Goodwill ($63,000 + $2,000)	65,000	
Bonds Payable		150,000
Common Stock (5,000 shares × $10 par)		50,000
Paid-In Capital in Excess of Par [($50,000 + $45,000) – $50,000 par]		45,000
Cash		400,000
To record the acquisition of Oldtime.		

SPECIAL APPENDIX

CHAPTER 1

EXERCISES

EXERCISE SA1-1

Value analysis:

Price paid	$400,000	
Total fair value of net assets	528,000	
Goodwill	n/a	
Gain	128,000	

Journal entry:

Currents Assets	120,000	
Land (fair value)	80,000	
Buildings (net) (fair value)	250,000	
Equipment (net) (fair value)	150,000	
Patents (fair value)	20,000	
Cash		400,000
Liabilities (fair value)		92,000
Gain on Purchase		128,000
Dr = Cr check amounts	620,000	620,000
Acquisition Expense*	23,000	
Cash		23,000

*$18,000 direct + $5,000 indirect

PROBLEMS

PROBLEM SA1-1

Purchase price:	Part 1	Part 2
Cash		$385,000
Number of shares exchanged	20,000	
Par value of a share of stock	$10	
Market value of a share of stock	$25	
Market value of stock exchanged	$500,000	
Total purchase price	$500,000	$385,000

Value analysis:		
Price paid	$500,000	$385,000
Fair value of net assets	420,000	420,000
Goodwill	80,000	n/a
Gain	n/a	35,000

Kent Corporation journal entries:

(1)	Accounts Receivable	50,000	
	Inventory	250,000	
	Land	40,000	
	Building	120,000	
	Goodwill	80,000	
	Accounts Payable		40,000
	Common Stock		200,000
	Paid-In Capital in Excess of Par		300,000
(2)	Accounts Receivable	50,000	
	Inventory	250,000	
	Land	40,000	
	Building	120,000	
	Accounts Payable		40,000
	Gain on Purchase		35,000
	Cash		385,000

CHAPTER 2

EXERCISES

EXERCISE SA2-1

(1)

Value Analysis Schedule	Parent Price	NCI	Company Value
Company fair value	720,000	180,000	900,000
Fair value of net assets excluding goodwill	656,000	164,000	820,000
Goodwill	64,000	16,000	80,000
Gain	n/a		—

Determination and Distribution of Excess Schedule

	Company Value	Parent Price	NCI Value	Worksheet Distribution
Fair value of subsidiary:	900,000	720,000	180,000	
Less book value interest acquired:				
Common stock, $5 par	100,000			
Paid-in excess of par	150,000			
Retained earnings	250,000			
Total equity	500,000			
Interest acquired		80.00%	20.00%	
Book value		400,000	100,000	
Excess of cost over book value (debit)	400,000	320,000	80,000	
Adjustment of identifiable accounts:				
Inventory ($300,000 fair – $200,000 book value)	**100,000**		0	**debit D1**
Land ($200,000 fair – $100,000 book value)	**100,000**		0	**debit D2**
Building ($600,000 fair – $450,000 book value)	**150,000**			**debit D3**
Equipment ($200,000 fair – $230,000 book value)	**(30,000)**			**credit D4**
Goodwill	**80,000**			**debit D5**
Total	**400,000**			

(2) Elimination entries:

Common Stock ($5 par, 80%)	80,000	
Paid-In Capital in Excess of Par (80%)	120,000	
Retained Earnings (80%)	200,000	
Investment in Cooker Company		400,000
Inventory	100,000	
Land	100,000	
Building	150,000	
Goodwill	80,000	
Equipment		30,000
Investment in Cooker Company (excess remaining)		320,000
Noncontrolling Interest (RE) (to adjust to fair value)		80,000

EXERCISE SA2-2

(1)

Value Analysis Schedule	Parent Price	NCI	Company Value
Company fair value	656,000	164,000	820,000
Fair value of net assets excluding goodwill	536,000	134,000	670,000
Goodwill	120,000	30,000	150,000
Gain	n/a		—

Determination and Distribution of Excess Schedule

	Company Value	Parent Price	NCI Value	Worksheet Distribution
Fair value of subsidiary:	820,000	656,000	164,000	
Less book value interest acquired:				
Common stock, $5 par	50,000			
Paid-in excess of par	130,000			
Retained earnings	370,000			
Total equity	550,000			
Interest acquired		80.00%	20.00%	
Book value		440,000	110,000	
Excess of cost over book value (debit)	270,000	216,000	54,000	
Adjustment of identifiable accounts:				
Inventory ($400,000 fair – $280,000 book value)	**120,000**		0	**debit D1**
Property, plant, and equipment ($500,000 fair – $400,000 book value)	**100,000**		0	**debit D2**
Goodwill ($150,000 fair – $100,000 book value)	**50,000**			**debit D3**
Total	**270,000**			

(2) Elimination entries:

Common Stock ($5 par, 80%)	40,000	
Paid-In Capital in Excess of Par (80%)	104,000	
Retained Earnings (80%)	296,000	
Investment in Saturn Company		440,000
Inventory	120,000	
Property, Plant, and Equipment	100,000	
Goodwill	50,000	
Investment in Saturn Company (excess remaining)		216,000
Noncontrolling Interest (RE) (to adjust to fair value)		54,000

(3) Value analysis:

Value Analysis Schedule	Parent Price	NCI	Company Value
Company fair value	512,000	~~128,000~~ 134,000	646,000
Fair value of net assets excluding goodwill	536,000	134,000	670,000
Goodwill			
Gain	24,000		24,000

Determination and Distribution of Excess Schedule

	Company Value	Parent Price	NCI Value	Worksheet Distribution
Fair value of subsidiary:	646,000	512,000	134,000	
Less book value interest acquired:				
Common stock, $5 par	50,000			
Paid-in excess of par	130,000			
Retained earnings	370,000			
Total equity	550,000			
Interest acquired		80.00%	20.00%	
Book value		440,000	110,000	
Excess of cost over book value (debit)	96,000	72,000	24,000	
Adjustment of identifiable accounts:				
Inventory ($400,000 fair – $280,000 book value)	**120,000**		0	**debit D1**
Property, plant, and equipment ($500,000 fair – $400,000 book value)	**100,000**		0	**debit D2**
Goodwill ($0 fair – $100,000 book value)	**(100,000)**			**credit D3**
Gain	**(24,000)**			**credit D4**
Total	**96,000**			

Elimination entries:

Common Stock ($5 par, 80%)	40,000	
Paid-In Capital in Excess of Par (80%)	104,000	
Retained Earnings (80%)	296,000	
Investment in Saturn Company		440,000
Inventory	120,000	
Property, Plant, and Equipment	100,000	
Goodwill		100,000
Gain		24,000
Investment in Saturn Company (excess remaining)		72,000
Noncontrolling Interest (RE) (to adjust to fair value)		24,000

PROBLEMS

PROBLEM SA2-1

(1)	Investment in Express Corporation	320,000	
	Cash		320,000

(2)

Value Analysis Schedule	Parent Price	NCI	Company Value
Company fair value	320,000	~~80,000~~ 85,400	405,400
Fair value of net assets excluding goodwill	341,600	85,400	427,000
Goodwill	—	—	—
Extraordinary gain	21,600		21,600

Determination and Distribution of Excess Schedule

	Company Value	Parent Price	NCI Value	Worksheet Distribution
Fair value of subsidiary:	405,400	320,000	85,400	
Less book value interest acquired:				
Common stock, $10 par	50,000			
Paid-in excess of par	250,000			
Retained earnings	70,000			
Total equity	370,000			
Interest acquired		80.00%	20.00%	
Book value		296,000	74,000	
Excess of cost over book value (debit) ...	35,400	24,000	11,400	
Adjustment of identifiable accounts:				
Inventory ($100,000 fair – $80,000 book value)	**20,000**			**debit D1**
Land ($50,000 fair – $40,000 book value)	**10,000**		0	**debit D2**
Buildings ($200,000 fair – $180,000 book value)	**20,000**			**debit D3**
Equipment ($162,000 fair value – $160,000 book value)	**2,000**			**debit D4**
Discount on bonds payable ($95,000 fair – $100,000 book value)	**5,000**			**debit D5**
Gain	**(21,600)**	0	0	**credit D6**
Total	**35,400**			

(3) Elimination entries:

Common Stock	40,000	
Paid-In Capital in Excess of Par	200,000	
Retained Earnings	56,000	
Investment in Express Corporation		296,000
Inventory	20,000	
Land	10,000	
Buildings	20,000	
Equipment	2,000	
Discount on Bonds Payable	5,000	
Retained Earnings—Controlling (gain)		21,600
Retained Earnings—Express (adjust NCI)		11,400
Investment in Express Corporation		24,000

PROBLEM SA2-2

(1)

Value Analysis	Parent Price	NCI	Company
Price paid	950,000	237,500	1,187,500
Fair value of net assets excluding goodwill	680,000	170,000	850,000
Goodwill	270,000	67,500	337,500
Gain	n/a		—

Determination and Distribution of Excess Schedule

	Company Value	Parent Price	NCI
Fair value of subsidiary:	1,187,500	950,000	237,500
Less book value interest acquired:			
Common stock	10,000		
Paid-in excess of par	190,000		
Retained earnings	140,000		
Total equity	340,000		
Interest acquired		80.00%	20.00%
Book value		272,000	68,000
Excess of cost over book value	847,500	678,000	169,500

Adjustments to accounts:		Worksheet Distribution
Inventory	(20,000)	credit D1
Land	100,000	debit D2
Buildings	200,000	debit D3
Equipment	110,000	debit D4
Patent	140,000	debit D5
Computer software	50,000	debit D6
Premium on bonds payable	(10,000)	credit D7
Goodwill ($337,000 – $60,000)	277,500	debit D8
Extraordinary gain	—	
Total	847,500	

Parton Company and Subsidiary Soma Corporation
Worksheet for Consolidated Financial Statements
For Year Ended December 31, 20X1

(2)

	Balance Sheet		Eliminations				Consolidated
	Parton	Soma	Dr.		Cr.	NCI	Balance Sheet
Cash	170,000	.....	.....		.....	.....	170,000
Accounts Receivable	300,000	50,000	.....		.....	.....	350,000
Inventory	410,000	120,000	.....		(D1)	20,000	510,000
Investment in Soma	950,000	.....	.....	(EL)	272,000	.....	.....
	.....	.....	.....	(D)	678,000	.....	.....
Land	800,000	100,000	(D2)	100,000	.....	.....	1,000,000
Buildings	2,800,000	300,000	(D3)	200,000	.....	.....	3,300,000
Accumulated Depreciation	(500,000)	(100,000)	.....		.....	.....	(600,000)
Equipment	600,000	140,000	(D4)	110,000	.....	.....	850,000
Accumulated Depreciation	(230,000)	(50,000)	.....		.....	.....	(280,000)
Patent	.....	10,000	(D5)	140,000	.....	.....	150,000
Computer Software	.....	..... (D6)	50,000		.....	.....	50,000
Goodwill	.....	60,000	(D8)	277,500	.....	.....	337,500
Current Liabilities	(150,000)	(90,000)	.....		.....	.....	(240,000)
Bonds Payable	(300,000)	(200,000)	.....		.....	.....	(500,000)
Premium on Bonds Payable	.....	.....	.....	(D7)	10,000	.....	(10,000)
Common Stock—Soma	.....	(10,000)	(EL)	8,000	.....		(2,000)
Paid-In Excess—Soma	.....	(190,000)	(EL)	152,000	.....		(38,000)
Retained Earnings—Soma	.....	(140,000)	(EL)	112,000	(NCI)	169,500	(197,500)

	.....	.....	.....		0	0	.....
Common Stock—Parton.....	(95,000)	.....	.....		.....	.....	(95,000)
Paid-In Excess—Parton	(3,655,000).....		.....		.....	.....	(3,655,000)
Retained Earnings—Parton.....	(1,100,000).....		.....		.....	.....	(1,100,000)
Totals	0	0		1,149,500		1,149,500	.....
NCI.....						(237,500)	(237,500)
Totals							0

Eliminations and Adjustments:

(EL) Eliminate parent ownership interest.
(D) Distribute excess.
(NCI) Adjust NCI to fair value.

Distribute adjustments:

(D1) Inventory.
(D2) Land.
(D3) Buildings.
(D4) Equipment.
(D5) Patent.
(D7) Computer software.
(D8) Goodwill.

CHAPTER 3

PROBLEMS

PROBLEM SA3-1

(1)

Value Analysis	Parent Price	NCI Value	Company Value
Company fair value	308,000	77,000	385,000
Fair value of net assets excluding GW	268,000	67,000	335,000
Goodwill	40,000	10,000	50,000
Gain	n/a		—

Determination and Distribution of Excess Schedule

	Company Value		Parent Price	NCI Value
Fair value of subsidiary:	385,000		308,000	77,000
Less book value interest acquired:				
Common stock	50,000			
Paid-in excess of par	100,000			
Retained earnings	150,000			
Total equity	300,000			
Interest acquired			80.00%	20.00%
Book value of interest			240,000	60,000
Excess of cost over book value (debit)	85,000		68,000	17,000
Allocated to:				Amortization
Inventory	10,000		debit D1	
Buildings	25,000	10	debit D2	2,500
Goodwill	50,000		debit D3	
Total adjustments	85,000			

Problem SA3-1, Continued

Amortization Schedules
Year of Consolidation 2

Account Adjustments	Life	Annual Amount	Current Year	Prior Years	Total	Key
Inventory	—	$ 10,000	—	—	—	D1
Subject to amortization:						
Buildings and equipment	10	2,500	$ 2,500	$ 2,500	$ 5,000	A2
Total amortizations		$ 2,500	$ 2,500	$ 2,500	$ 5,000	

Income Distribution Schedules

Subsidiary Company

Amortizations	$2,500	Internally generated net income	$90,000
		Total	$87,500
		NCI share	17,500
		Controlling share	70,000

Parent Company

		Internally generated net income	$100,000
		Controlling share of subsidiary	70,000
		Total	$170,000

(2)

Worksheet
Year of Consolidation 2

	Trial Balance		Eliminations		Consolidated		Controlling	Consolidated
	Peres	Soll	Dr.	Cr.	Net Income	NCI	Retained Earnings	Balance Sheet
Inventory	100,000	50,000						150,000
Other Current Assets	148,000	180,000						328,000
Investment in Soll	388,000			(CY1)	72,000			
			(CY2) 24,000					
				(EL) 272,000				
				(D) 68,000				
Land	50,000	50,000						100,000
Buildings and Equipment	350,000	320,000	(D2) 25,000					695,000
Accumulated Depreciation	(100,000)	(60,000)		(A2)	5,000			(165,000)
Goodwill			(D3) 50,000					50,000
Other Intangible Assets	20,000							20,000
Current Liabilities	(120,000)	(40,000)						(160,000)
Bonds Payable		(100,000)						(100,000)
Other Long-Term Liabilities	(200,000)							(200,000)
Common Stock—Soll		(50,000)	(EL) 40,000				(10,000)	
Paid-In Excess—Soll		(100,000)	(EL) 80,000				(20,000)	
Retained Earnings—Soll		(190,000)	(EL) 152,000				(52,500)	
				(NCI) 17,000				
			(D1) 2,000					
			(A2) 500					

Worksheet
Year of Consolidation 2
(Concluded)

	Trial Balance			Eliminations		Consolidated		Controlling	Consolidated
	Peres	Soll		Dr.	Cr.	Net Income	NCI	Retained Earnings	Balance Sheet
Common Stock—Peres	(200,000)								
(200,000)									
Paid-In Excess—Peres	(100,000)								
(100,000)									
Retained Earnings—Peres	(214,000)								
			(D1)	8,000					
			(A2)	2,000					
								(204,000)	
Net Sales	(520,000)	(450,000)					(970,000)		
Cost of Goods Sold	300,000	260,000					560,000		
Operating Expenses	120,000	100,000		(A2) 2,500			222,500		
Subsidiary (Dividend) Income	(72,000)			(CY1) 72,000					
Dividends Declared—Soll		30,000			(CY2)	24,000		6,000	
Dividends Declared—Peres	50,000								50,000
Totals	0	0		458,000		458,000			
Consolidated Net Income						(187,500)			
NCI Share						17,500	(17,500)		
Controlling Share						170,000		(170,000)	
NCI							(94,000)		
						(94,000)			
Controlling Retained Earnings								(324,000)	(324,000)
Totals									0

Eliminations and Adjustments:
(CY1) Current-year subsidiary income.
(CY2) Current-year dividend.
(EL) Eliminate controlling interest in Sub equity.
(D) Distribute excess.
(D1) Inventory (retained earnings).

(D2) Buildings and equipment.
(D3) Goodwill.
(A2) Amortize excess.

PROBLEM SA3-2

(1)

Value Analysis	Parent Price	NCI Value	Company Value
Company fair value	300,000	~~75,000~~ 86,800	386,800
Fair value of net assets excluding goodwill	347,200	86,800	434,000
Goodwill	—	—	—
Gain	47,200		47,200

Determination and Distribution of Excess Schedule

	Company Value		Parent Price	NCI Value
Price paid for investment:	386,800		300,000	86,800
Less book value interest acquired:				
Common stock	10,000			
Paid-in excess of par	90,000			
Retained earnings	112,000			
Total equity	212,000			
Interest acquired			80.00%	20.00%
Book value of interest			169,600	42,400
Excess of cost over book value (debit)	174,800		130,400	44,400
Allocated to:				Amortization
Accounts receivable	—	1		
Inventory	(2,000)	1	credit D1	
Accounts payable	—	1		
Bonds payable	4,000	5	debit D3	800
Land	90,000	—	debit D2	
Buildings	100,000	20	debit D4	5,000
Equipment	30,000	5	debit D5	6,000
Goodwill	—			
Gain	(47,200)		credit D7	
Total adjustments	174,800			

Amortization Schedules
Year of Consolidation 3

Account adjustments	Life	Annual Amount	Current Year	Prior Years	Total	Key
Inventory	1	$ (2,000)	—	$ (2,000)	$ (2,000)	D1
Subject to amortization:						
Bonds payable	5	800	$ 800	1,600	2,400	A3
Buildings	20	5,000	5,000	10,000	15,000	A4
Equipment	5	6,000		6,000	12,000	A5
Total amortizations		$ 11,800	$11,800	$23,600	$35,400	

Income Distribution Schedules

Subsidiary Company

Amortizations	$11,800	Internally generated net income	$35,000
		Total	$23,200
		NCI share	4,640
		Controlling share	18,560

Parent Company

		Internally generated net income	$165,000
		Controlling share of subsidiary	18,560
		Total	$183,560

Worksheet
Year of Consolidation 3

	Trial Balance		Eliminations								Consolidated		Controlling Retained	Consolidated Balance
	Pcraft	Sailair		Dr.			Cr.				Net Income	NCI	Earnings	Sheet
Cash	282,000	60,000												
342,000														
Accounts Receivable	90,000	55,000												
145,000														
Inventory	120,000	86,000												
206,000														
Land	100,000	60,000		(D2)	90,000									
250,000														
Investment in Sailair	376,000						(CY1)			28,000				
			(CY2)		8,000									
				(EL)			225,600							
				(D)			130,400							
Buildings	800,000	300,000		(D4)	100,000									
1,200,000														
Accumulated Depreciation	(220,000)	(80,000)					(A4)			15,000				
(315,000)														
Equipment	150,000	100,000		(D5)	30,000									
280,000														
Accumulated Depreciation	(90,000)	(72,000)					(A5)			18,000				
(180,000)														
Goodwill														
Current Liabilities	(60,000)	(102,000)												
(162,000)														
Bonds Payable		(100,000)												
(100,000)														
Discount (Premium)			(D3)		4,000									
				(A3)			2,400							1,600
Common Stock—Sailair		(10,000)		(EL)	8,000								(2,000)	
Paid-In Excess—Sailair		(90,000)		(EL)	72,000								(18,000)	
Retained Earnings—Sailair		(182,000)		(EL)	145,600								(76,480)	
				(D)			44,400							
				(D1)			400							
			(A3–A5)		4,720									

Common Stock—Pcraft	(100,000)								
(100,000)									
Paid-In Excess—Pcraft	(900,000)								
(900,000)									
Retained Earnings—Pcraft	(375,000)				(D7)	47,200			
				(D1)	1,600				
			(A3–A5)	18,880					
								(404,920)	

Worksheet
Year of Consolidation 3
(Concluded)

	Trial Balance		Eliminations		Consolidated		Controlling	Consolidated
	Pcraft	Sailair	Dr.	Cr.	Net Income	NCI	Retained Earnings	Balance Sheet
Sales	(800,000)	(350,000)				(1,150,000)		
Cost of Goods Sold	450,000	210,000				660,000		
Depreciation Expense—Buildings	30,000	15,000	(A4) 5,000			50,000.		
Depreciation Expense—Equipment	15,000	14,000	(A5) 6,000			35,000.		
Other Expenses	140,000	68,000				208,000		
Interest Expense		8,000	(A3) 800			8,800...		
Gain on Purchase								
Subsidiary (Dividend) Income	(28,000)		(CY1) 28,000					
Dividends Declared—Sailair		10,000		(CY2)	8,000		2,000	
Dividends Declared—Pcraft	20,000							20,000.
Totals	0	0	521,000	521,000				
Consolidated Net Income					(188,200)			
NCI Share					4,640	(4,640)		
Controlling Share					183,560		(183,560)	
NCI						(99,120)		
					(99,120)			
Controlling Retained Earnings							(568,480)	(568,480)
Totals								0

Eliminations and Adjustments:
(CY1) Current-year subsidiary income.
(CY2) Current-year dividend.
(EL) Eliminate controlling interest in Sub equity.
(D) Distribute excess.
(A) Amortize excess.