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FINANCIAL ACCOUNTING SOLUTIONS MANUAL



LARRY M. WALTHER

2020 EDITION

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Principles of Accounting.com

Financial Accounting Solutions Manual

2020 Edition



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Basic Solutions

Definitions, concepts, and awareness of accounting

B-01.01

(a) My name may sound familiar because it is the same as Luca Pacioli, a Renaissance era monk. He is credited with developing the method for tracking the success or failure of trading ventures. That method remains the foundation of the accounting equation and fundamental system we continue to use today.

(b) It is a common misconception that accounting and bookkeeping are the same. In fact, they are quite different. Much of the mundane bookkeeping task has long since been subsumed by computer technology. But, the accounting profession has endured and prospered. Accounting involves complex analysis, measurement, and reporting. It is the language of business, and "speaking" that language is critical to good business decision making and success.

(c) Financial accounting is about the rules and structure for external reporting to investors and creditors. It is structured and rules-based to provide a consistent and reliable flow of information to investors and creditors.

Managerial accounting focuses on tools for planning, controlling, and decision making. Specialized reports, budgets, product costing data, and other details are needed to run an organization, but that information is not generally disseminated outside of the organization.

(d) Good question, but the answer is definitely a big "NO." Computers have removed much of the tedium from accounting, but they have also enabled the development of robust information systems that increase the ability of accountants to mine and analyze data to improve decision making!

(e) I am glad to hear you are considering this choice. It will serve you well. First, the FASB is a rule-making body. But, to get a CPA you would apply and meet the conditions of your individual state board of accounting. This normally entails completion of an approved course of study (degree), passing a uniform CPA exam (that includes coverage of FASB rules, and many other facets), and obtaining some significant experience in the field. Outside of the USA, you may find the CPA equivalency in the form of a chartered accountant and the rules and experience requirements may vary.

- (a) Cash
Asset
- (b) Dividend to shareholders
Other (dividend)
- (c) Land
Asset
- (d) Accounts payable
Liability
- (e) Capital stock
Owners' equity
- (f) Notes payable
Liability
- (g) Accounts receivable
Asset
- (h) Salaries
Expense
- (i) Rent paid
Expense
- (j) Cost of utilities used
Expense
- (k) Customer order not yet filled

Other (not a financial statement item – sometimes reported as a "backlog" by management, but not part of the financial statements)
- (l) The value of completed services provided to customers
Revenue
- (m) Obligation to pay for utilities consumed
Liability

*Impact of transactions on fundamental accounting equation***B-01.03**

	<u>Assets</u>	<u>Liabilities</u>	<u>Equity</u>
(a)	Paid the current month's rent.		
	Decrease	No Change	Decrease
(b)	Provided services to customers for cash.		
	Increase	No Change	Increase
(c)	Provided services to customers on account.		
	Increase	No Change	Increase
(d)	Recorded receipt of an electric bill to be paid next month.		
	No Change	Increase	Decrease
(e)	Paid an electric bill received in a prior month.		
	Decrease	Decrease	No Change
(f)	Purchased land for cash.		
	No Change	No Change	No Change
(g)	Purchased equipment in exchange for a note payable (loan).		
	Increase	Increase	No Change
(h)	Collected a previously recorded account receivable.		
	No Change	No Change	No Change
(i)	Purchased a building by paying 20% in cash and agreeing to pay the remainder over future years.		
	Increase	Increase	No Change
(j)	Declared and paid a dividend to shareholders.		
	Decrease	No Change	Decrease

- (a) The monthly fee paid to maintain Goudar's website.
Expense
- (b) Needles, bags, plastic bandages, etc. that *were used* to collect blood.
Expense
- (c) Needles, bags, plastic bandages, etc. that will be used *in the future* to collect blood.
Asset
- (d) Amounts received from hospitals to pay for the blood products.
Revenue
- (e) A loan that is owed to a bank.
Liability
- (f) The building and equipment that serves as the home office for Goudar.
Asset
- (g) Amounts owed to a printing company that prepared T-shirts given away at a recent blood drive campaign.
Liability
- (h) The salaries of employees of Goudar.
Expense

To develop an understanding of the nature of changes in equity

B-01.05

	<u>Dec. 31, 20X1</u>	<u>Dec. 31, 20X2</u>
Total assets	\$1,500,000	\$2,300,000
Total liabilities	<u>700,000</u>	<u>1,400,000</u>
Total equity	<u>\$ 800,000</u>	<u>\$ 900,000</u>
Ending equity		\$ 900,000
Beginning equity		<u>800,000</u>
Increase in equity		<u>\$ 100,000</u>

- (a) Magee paid no dividends, and no additional capital was raised via share issuances.

Because there were no dividends and no issues of stock, the \$100,000 increase in equity is all attributable to net income.

$$\$800,000 + \$0 \text{ for stock issuances} - \$0 \text{ for dividends} + \text{net income } (\$100,000) = \$900,000$$

- (b) Magee paid \$100,000 in dividends, and no additional capital was raised via share issuances.

Because there were \$100,000 in dividends and no issues of stock, the \$100,000 increase in equity would require a \$200,000 net income.

$$\$800,000 + \$0 \text{ for stock issuances} - \$100,000 \text{ for dividends} + \text{net income } (\$200,000) = \$900,000$$

- (c) Magee paid no dividends, but raised \$250,000 via issuances of additional shares of stock.

Because there were no dividends, but \$250,000 of stock issuances, Magee had a net loss of \$150,000.

$$\$800,000 + \$250,000 \text{ for stock issuances} - \$0 \text{ for dividends} + \text{net income } (-\$150,000) = \$900,000$$

- (d) Magee paid \$100,000 in dividends, and raised \$250,000 via issuances of additional shares of stock.

Because there were \$100,000 in dividends, and \$250,000 of stock issuances, Magee had a net loss of \$50,000.

$$\$800,000 + \$250,000 \text{ for stock issuances} - \$100,000 \text{ for dividends} + \text{net income } (-\$50,000) = \$900,000$$

B-01.06

To drill on the articulation of the core financial statements

CUE CORPORATION
Income Statement
For the Years Ending December 31, 20XX

	20X4	20X3	20X2
Revenues			
Services to customers	\$200,000	\$160,000	\$100,000
Expenses			
Wages	\$137,000	\$117,000	\$70,000
Interest	<u>3,000</u> <u>140,000</u>	<u>3,000</u> <u>120,000</u>	<u>5,000</u> <u>75,000</u>
Net income	<u>\$ 60,000</u>	<u>\$ 40,000</u>	<u>\$ 25,000</u>

CUE CORPORATION
Statement of Retained Earnings
For the Year Ending December 31, 20XX

	20X4	20X3	20X2
Beginning retained earnings	\$30,000	\$10,000	\$ -
Plus: Net income	<u>60,000</u>	<u>40,000</u>	<u>25,000</u>
	\$90,000	\$50,000	\$25,000
Less: Dividends	<u>30,000</u>	<u>20,000</u>	<u>15,000</u>
Ending retained earnings	<u>\$60,000</u>	<u>\$30,000</u>	<u>\$10,000</u>

CUE CORPORATION
Balance Sheet
December 31, 20XX

	20X4	20X3	20X2
Assets			
Cash	\$ 54,000	\$ 59,000	\$ 50,000
Accounts receivable	65,000	50,000	70,000
Land	<u>180,000</u>	<u>180,000</u>	<u>180,000</u>
Total assets	<u>\$299,000</u>	<u>\$289,000</u>	<u>\$300,000</u>
Liabilities			
Interest payable	\$ 1,000	\$ 1,000	\$ 2,000
Loan payable	<u>10,000</u>	<u>30,000</u>	<u>60,000</u>
Total liabilities	\$11,000	\$31,000	\$62,000
Stockholders' equity			
Capital stock	\$228,000	\$228,000	\$228,000
Retained earnings	<u>60,000</u>	<u>30,000</u>	<u>10,000</u>
Total stockholders' equity	<u>288,000</u>	<u>258,000</u>	<u>238,000</u>
Total Liabilities and equity	<u>\$299,000</u>	<u>\$289,000</u>	<u>\$300,000</u>

- (a) Accounting is about measuring and reporting financial information for an economic unit. This information is general purpose in orientation and is intended to provide a basis for informed decisions by investors, creditors, and others. These parties often provide (or withhold) the enabling capital resources necessary to develop the entity's ability to provide goods and services. As such, accounting aids society by signaling where investors and creditors might best allocate their limited resources to create productive capacity for needed goods and services.
- (b) Accounting is just once source of information that would be considered by investors and creditors. Many important facets cannot be conveyed by accounting numbers alone, but would be very important to stakeholders. Examples include management credentials and experience, ethical standards of the organization, environmental responsibilities, new product developments, and so forth. Much of this additional insight is gained by reference to sources outside of the financial reporting model.
- (c) Accounting principles, rules, and procedures are not based on absolute truths or purely scientific methodology. They reflect opinions and judgment about how best to capture and report information about business condition and performance. Further, the ideas about best practices can evolve over time. One of the frustrating realities of professional accounting practice is that one is constantly pressed to stay abreast of evolving rules. Although many of the basic concepts are fairly durable, there is always the potential for change. For instance, although the historical cost principle has been well established for many years, more recent decisions by the FASB and IASB point to an increased willingness to push for asset and liability measurements that are keyed to changing fair value approaches.

- (a) The fundamental accounting equation precludes a situation where liabilities exceed assets.
Disagree
- (b) A complete set of financial statements would include a cash flow statement.
Agree
- (c) The balance sheet can be prepared in a vertical or horizontal format.
Agree
- (d) The period of time covered by each financial statement is identical.
Disagree
- (e) Many assets are reported at their historical cost.
Agree
- (f) Revenue should not be recognized before it is collected.
Disagree
- (g) The term income is synonymous with the term revenue.
Disagree
- (h) Dividends are reported as an expense on the income statement.
Disagree
- (i) Retained earnings will equal cash on hand.
Disagree
- (j) Issuing stock does not increase a company's revenue or income.
Agree

COMPANY A -- When a company's dividends exceed income, retained earnings will decrease. In this case, the decrease in retained earnings was not due to a loss.

COMPANY B -- About the only practical way to achieve an increase in retained earnings is by achieving a net income (it is conceivable there was an accounting change or error correction, but that is beyond the scope of what a student would be expected to consider at this stage of development).

While issuing stock does increase equity, that increase is seen in other equity accounts -- not retained earnings. This company did not incur a loss.

COMPANY C -- The fundamental accounting equation dictates that equity must decrease in those cases where liabilities are increasing more than assets. If equity is decreasing, and there were no stockholder-related transactions (like dividends or share issuances or repurchases), then the culprit was likely a net loss.

It is safe to assume that Company C incurred a loss.

COMPANY D -- This company incurred a loss. Expenses were more than revenues. Issuing stock may generate resources to keep the company afloat, but it will not mitigate the fact that there was a loss.

Involved Solutions

I-01.01

Accounting, GAAP, careers, and ethics

- (a) The book defines accounting as a set of concepts and techniques that are used to measure and report financial information about an economic unit. Students may find other definitions, but each definition likely identifies similar attributes.

Generally accepted accounting principles (GAAP) are comprised of the conventions, rules, practices, and procedures that define accepted accounting practice at a particular point in time.

- (b) There are many unique career paths within the accounting profession. Many individuals decide to work for a specific company as an employee. These persons might do internal audit work, external reporting tasks, or engage in managerial accounting and strategic finance. The chief accounting officer in a company might be the controller or chief financial officer.

Other persons engage in public accounting, typically seeking to become a certified public accountant. The job duties of a public accountant include providing independent auditing services, tax consulting and preparation, and other forms of business consulting and support services.

Still others may find it interesting to work in the governmental section. Federal, state, and local agencies all have complex accounting issues, and employ numerous accounting professionals. The GAO, IRS, and SEC all hire numerous accountants. Some governmental careers come with a certain amount of intrigue, such as providing forensic accounting services for the FBI!

- (c) Ethics is about doing the right thing. It involves truth, justice, and honor. You will discover that being a consistently ethical person will contribute to your success. Others will come to trust and help you. Quite the opposite is true for those who cross the line and behave unethically.

Accountants are often entrusted with other persons' money issues, and must be reliable and truthful in fulfilling their fiduciary duties. It does great damage to the whole accounting profession when even one person errs. As a result, the profession has strict ethical standards and deals harshly with offenders.

Ethical lapses sometimes occur when a person is under pressure to make a hasty decision. When confronted with a challenge, it is best to sleep on the issue and fully consider all ramifications. Avoid being railroaded into doing something that just does not seem right.

- (a) The fundamental accounting equation is “assets = liabilities + owners’ equity.” This is generally a true statement, whether the entity is a sole proprietorship, partnership, or corporation. The section for owners’ equity might be called by different names, depending on the nature of the entity (e.g., stockholders’ equity for a corporation). And, the details within owners’ equity vary somewhat based on the type of entity, but the fundamental equation is unaffected. A not-for-profit entity might label this section “net assets” instead of “equity” since there is not really an identifiable ownership.
- (b) The three entities identified in the text are the traditional sole proprietorship, partnership, and corporation. If GAAP is followed, the measurement and reporting of assets and liabilities are not really impacted by the type of entity. However, the detailed composition of equity varies.

A corporation will report information about capital stock and retained earnings. A partnership may report capital accounts for each partner. A sole proprietorship likely just shows a single caption for owner’s equity. As one delves deeper into accounting, other details about equity reporting will emerge – but for now this explanation should suffice.

- (c) There are actually many other types of entities. Limited Liability Companies, Limited Liability Partnerships, and various trusts. The LLC and LLP structures have been popularized because they may protect business owners from liabilities incurred by the business (like a corporation), while enabling a more favorable operating and tax status (than a corporation). Choice of entity is a potentially complex issue that requires careful consideration of the interaction of numerous business and tax issues. Despite the legal complexities, the choice of entity has little bearing on the financial accounting techniques that must be used. The textbook generally illustrates the corporate form of entity.

BISCEGLIA COMPANY
Income Statement
For the Year Ending December 31, 20X5

Revenues		
Services to customers		\$90,000
Expenses		
Wages	\$37,000	
Utilities	6,000	
Rent	<u>10,000</u>	<u>53,000</u>
Net income		<u>\$37,000</u>

BISCEGLIA COMPANY
Statement of Retained Earnings
For the Year Ending December 31, 20X5

Beginning retained earnings	\$11,000
Plus: Net income	<u>37,000</u>
	\$48,000
Less: Dividends	<u>5,000</u>
Ending retained earnings	<u>\$43,000</u>

BISCEGLIA COMPANY
Balance Sheet
December 31, 20X5

Assets		
Cash		\$ 9,000
Accounts receivable		19,000
Equipment		<u>80,000</u>
Total assets		<u>\$108,000</u>
Liabilities		
Accounts payable	\$ 4,000	
Notes payable	<u>20,000</u>	
Total liabilities		\$24,000
Stockholders' equity		
Capital stock	\$41,000	
Retained earnings	<u>43,000</u>	
Total stockholders' equity		<u>84,000</u>
Total Liabilities and equity		<u>\$108,000</u>

Moderately complex assessment to determine income for four years

I-01.04

20X1	Retained earnings, December 31, 20X1	\$ 41,000
	Plus: Dividends paid during 20X1	<u>10,000</u>
	Net income for the year ending December 31, 20X1	<u>\$ 51,000</u>
20X2	Revenues for the year ending December 31, 20X2	\$ 90,000
	Less: Expenses for the year ending December 31, 20X2	<u>44,000</u>
	Net income for the year ending December 31, 20X2	<u>\$ 46,000</u>
20X3	Total equity, December 31, 20X3	\$210,000
	Less: Capital stock	<u>100,000</u>
	Retained earnings, December 31, 20X3	\$110,000
	Less: Retained earnings, December 31, 20X2	<u>80,000</u>
	Increase in retained earnings during 20X3	\$ 30,000
	Plus: Dividends paid during 20X3	<u>15,000</u>
	Net income for the year ending December 31, 20X3	<u>\$ 45,000</u>
20X4	Total liabilities, December 31, 20X3	\$220,000
	Plus: Increase in liabilities during 20X4	<u>50,000</u>
	Total liabilities, December 31, 20X4	<u>\$270,000</u>
	Total assets, December 31, 20X4	\$500,000
	Less: Total liabilities, December 31, 20X4	<u>270,000</u>
	Total equity, December 31, 20X4	\$230,000
	Less: Capital stock	<u>100,000</u>
	Retained earnings, December 31, 20X4	\$130,000
	Less: Retained earnings, December 31, 20X3	<u>110,000</u>
	Increase in retained earnings during 20X4	<u>\$ 20,000</u>

The 20X4 net income was \$40,000

Proof:

Dividends = Net Income X 50%

Increase in Retained Earnings = Net Income - Dividends

thus:

$\$20,000 = \text{Net income} - (\text{Net income} \times 50\%)$

$\$20,000 = 0.5 \times \text{Net Income}$

Net Income = \$40,000

BINGO CORPORATION
Income Statement
For the Month (through transaction #1)

Revenues		
Services to customers	\$	-
Expenses		
Wages	\$	-
Utilities	-	-
Net income	<u> </u>	<u>\$ -</u>

BINGO CORPORATION
Statement of Retained Earnings
For the Month (through transaction #1)

Beginning retained earnings	\$	-
Plus: Net income	<u> </u>	<u>-</u>
	\$	-
Less: Dividends	<u> </u>	<u>-</u>
Ending retained earnings	<u>\$</u>	<u>-</u>

BINGO CORPORATION
Balance Sheet
As of Completion of Transaction #1

Assets		
Cash	\$50,000	
Accounts receivable	-	
Building	<u> </u>	
Total assets	<u>\$50,000</u>	
Liabilities		
Wages payable	\$ -	
Notes payable	<u> </u>	
Total liabilities	<u>\$ -</u>	
Stockholders' equity		
Capital stock	\$50,000	
Retained earnings	<u> </u>	
Total stockholders' equity	<u>50,000</u>	
Total Liabilities and equity	<u>\$50,000</u>	

Cash increases \$50,000

Capital Stock increases \$50,000

BINGO CORPORATION
Income Statement
For the Month (through transaction #2)

Revenues		
Services to customers		\$ -
Expenses		
Wages	\$ -	
Utilities	-	-
Net income		<u>\$ -</u>

BINGO CORPORATION
Statement of Retained Earnings
For the Month (through transaction #2)

Beginning retained earnings	\$ -
Plus: Net income	-
	<u>\$ -</u>
Less: Dividends	-
Ending retained earnings	<u>\$ -</u>

BINGO CORPORATION
Balance Sheet
As of Completion of Transaction #2

Assets			
Cash	\$ 30,000		Cash decreases \$20,000
Accounts receivable	-		
Building	<u>120,000</u>		Building increases \$120,000
Total assets	<u>\$150,000</u>		
Liabilities			
Wages payable	\$ -		
Notes payable	<u>100,000</u>		Notes Payable increases \$100,000
Total liabilities	<u>\$100,000</u>		
Stockholders' equity			
Capital stock	\$ 50,000		
Retained earnings	-		
Total stockholders' equity	<u>50,000</u>		
Total Liabilities and equity	<u>\$150,000</u>		

BINGO CORPORATION
Income Statement
 For the Month (through transaction #3)

Revenues		
Services to customers		\$ -
Expenses		
Wages	\$5,000	
Utilities	-	<u>5,000</u>
Net income		<u>\$ (5,000)</u>

Wages Expense increases \$5,000

BINGO CORPORATION
Statement of Retained Earnings
 For the Month (through transaction #3)

Beginning retained earnings	\$ -
Plus: Net income	<u>(5,000)</u>
	\$ (5,000)
Less: Dividends	<u>-</u>
Ending retained earnings	<u>\$ (5,000)</u>

BINGO CORPORATION
Balance Sheet
 As of Completion of Transaction #3

Assets		
Cash		\$ 25,000
Accounts receivable		-
Building		<u>120,000</u>
Total assets		<u>\$145,000</u>
Liabilities		
Wages payable	\$ -	
Notes payable	<u>100,000</u>	
Total liabilities		\$100,000
Stockholders' equity		
Capital stock	\$ 50,000	
Retained earnings	<u>(5,000)</u>	
Total stockholders' equity		<u>45,000</u>
Total Liabilities and equity		<u>\$145,000</u>

Cash decreases \$5,000

BINGO CORPORATION
Income Statement
 For the Month (through transaction #4)

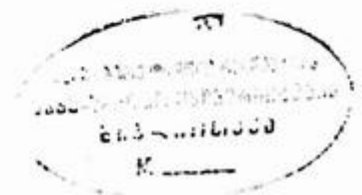
Revenues			
Services to customers		\$15,000	Revenue increases \$15,000
Expenses			
Wages	\$5,000		
Utilities	—	<u>5,000</u>	
Net income		<u>\$10,000</u>	

BINGO CORPORATION
Statement of Retained Earnings
 For the Month (through transaction #4)

Beginning retained earnings	\$ -
Plus: Net income	<u>10,000</u>
	\$10,000
Less: Dividends	<u>-</u>
Ending retained earnings	<u>\$10,000</u>

BINGO CORPORATION
Balance Sheet
 As of Completion of Transaction #4

Assets			
Cash		\$ 40,000	Cash increases \$15,000
Accounts receivable		-	
Building		<u>120,000</u>	
Total assets		<u>\$160,000</u>	
Liabilities			
Wages payable	\$ -		
Notes payable	<u>100,000</u>		
Total liabilities		\$100,000	
Stockholders' equity			
Capital stock	\$ 50,000		
Retained earnings	<u>10,000</u>		
Total stockholders' equity		<u>60,000</u>	
Total Liabilities and equity		<u>\$160,000</u>	



BINGO CORPORATION
Income Statement
 For the Month (through transaction #5)

Revenues		
Services to customers	\$15,000	
Expenses		
Wages	\$5,000	
Utilities	<u>2,000</u>	<u>7,000</u>
Net income		\$ 8,000

Utilities Expense increases \$2,000

BINGO CORPORATION
Statement of Retained Earnings
 For the Month (through transaction #5)

Beginning retained earnings	\$ -
Plus: Net income	<u>8,000</u>
	\$8,000
Less: Dividends	<u>-</u>
Ending retained earnings	<u>\$8,000</u>

BINGO CORPORATION
Balance Sheet
 As of Completion of Transaction #5

Assets		
Cash	\$ 38,000	
Accounts receivable	-	
Building	<u>120,000</u>	
Total assets		<u>\$158,000</u>
Liabilities		
Wages payable	\$ -	
Notes payable	<u>100,000</u>	
Total liabilities		\$100,000
Stockholders' equity		
Capital stock	\$ 50,000	
Retained earnings	<u>8,000</u>	
Total stockholders' equity		<u>58,000</u>
Total Liabilities and equity		<u>\$158,000</u>

Cash decreases \$2,000

BINGO CORPORATION
Income Statement
For the Month (through transaction #6)

Revenues		
Services to customers		\$15,000
Expenses		
Wages	\$5,000	
Utilities	<u>2,000</u>	<u>7,000</u>
Net income		<u>\$ 8,000</u>

BINGO CORPORATION
Statement of Retained Earnings
For the Month (through transaction #6)

Beginning retained earnings	\$ -
Plus: Net income	<u>8,000</u>
	\$8,000
Less: Dividends	<u>-</u>
Ending retained earnings	<u>\$8,000</u>

BINGO CORPORATION
Balance Sheet
As of Completion of Transaction #6

Assets			
Cash	\$ 30,000		Cash decreases \$8,000
Accounts receivable	-		
Building	<u>120,000</u>		
Total assets	<u>\$150,000</u>		
Liabilities			
Wages payable	\$ -		
Notes payable	<u>92,000</u>		Notes Payable decreases \$8,000
Total liabilities	\$ 92,000		
Stockholders' equity			
Capital stock	\$50,000		
Retained earnings	<u>8,000</u>		
Total stockholders' equity	<u>58,000</u>		
Total Liabilities and equity	<u>\$150,000</u>		

BINGO CORPORATION
Income Statement
 For the Month (through transaction #7)

Revenues		
Revenue increases \$10,000	Services to customers	\$25,000
Expenses		
	Wages	\$5,000
	Utilities	<u>2,000</u>
		<u>7,000</u>
	Net income	<u>\$18,000</u>

BINGO CORPORATION
Statement of Retained Earnings
 For the Month (through transaction #7)

Beginning retained earnings	\$ -
Plus: Net income	<u>18,000</u>
	<u>\$18,000</u>
Less: Dividends	<u>-</u>
Ending retained earnings	<u>\$18,000</u>

BINGO CORPORATION
Balance Sheet
 As of Completion of Transaction #7

Assets		
	Cash	\$ 30,000
Accounts Receivable increases \$10,000	Accounts receivable	10,000
	Building	<u>120,000</u>
	Total assets	<u>\$160,000</u>
Liabilities		
	Wages payable	\$ -
	Notes payable	<u>92,000</u>
	Total liabilities	\$ 92,000
Stockholders' equity		
	Capital stock	\$50,000
	Retained earnings	<u>18,000</u>
	Total stockholders' equity	<u>68,000</u>
	Total Liabilities and equity	<u>\$160,000</u>

BINGO CORPORATION
Income Statement
 For the Month (through transaction #8)

Revenues

Services to customers		\$25,000
-----------------------	--	----------

Expenses

Wages	\$8,000	
-------	---------	--

Wages Expense increases \$3,000

Utilities	<u>2,000</u>	<u>10,000</u>
-----------	--------------	---------------

Net income		<u>\$15,000</u>
-------------------	--	-----------------

BINGO CORPORATION
Statement of Retained Earnings
 For the Month (through transaction #8)

Beginning retained earnings		\$ -
-----------------------------	--	------

Plus: Net income		<u>15,000</u>
------------------	--	---------------

		\$15,000
--	--	----------

Less: Dividends		<u>-</u>
-----------------	--	----------

Ending retained earnings		<u>\$15,000</u>
--------------------------	--	-----------------

BINGO CORPORATION
Balance Sheet
 As of Completion of Transaction #8

Assets

Cash		\$ 30,000
------	--	-----------

Accounts receivable		10,000
---------------------	--	--------

Building		<u>120,000</u>
----------	--	----------------

Total assets		<u>\$160,000</u>
--------------	--	------------------

Liabilities

Wages payable	\$ 3,000	
---------------	----------	--

Wages Payable increases \$3,000

Notes payable	<u>92,000</u>	
---------------	---------------	--

Total liabilities		\$ 95,000
-------------------	--	-----------

Stockholders' equity

Capital stock	\$50,000	
---------------	----------	--

Retained earnings	<u>15,000</u>	
-------------------	---------------	--

Total stockholders' equity		<u>65,000</u>
----------------------------	--	---------------

Total Liabilities and equity		<u>\$160,000</u>
------------------------------	--	------------------

BINGO CORPORATION
Income Statement
 For the Month (through transaction #9)

Revenues		
Services to customers		\$25,000
Expenses		
Wages	\$8,000	
Utilities	<u>2,000</u>	<u>10,000</u>
Net income		<u>\$15,000</u>

BINGO CORPORATION
Statement of Retained Earnings
 For the Month (through transaction #9)

Beginning retained earnings	\$ -
Plus: Net income	<u>15,000</u>
	\$15,000
Less: Dividends	<u>-</u>
Ending retained earnings	<u>\$15,000</u>

BINGO CORPORATION
Balance Sheet
 As of Completion of Transaction #9

Assets		
Cash		\$ 34,000
Accounts receivable		6,000
Building		<u>120,000</u>
Total assets		<u>\$160,000</u>
Liabilities		
Wages payable	\$ 3,000	
Notes payable	<u>92,000</u>	
Total liabilities		\$ 95,000
Stockholders' equity		
Capital stock	\$50,000	
Retained earnings	<u>15,000</u>	
Total stockholders' equity		<u>65,000</u>
Total Liabilities and equity		<u>\$160,000</u>

BINGO CORPORATION
Income Statement
For the Month (through transaction #10)

Revenues		
Services to customers		\$25,000
Expenses		
Wages	\$8,000	
Utilities	<u>2,000</u>	<u>10,000</u>
Net income		<u>\$15,000</u>

BINGO CORPORATION
Statement of Retained Earnings
For the Month (through transaction #10)

Beginning retained earnings	\$ -	
Plus: Net income	<u>15,000</u>	
	\$15,000	
Less: Dividends	<u>6,000</u>	Dividends increase \$6,000
Ending retained earnings	<u>\$ 9,000</u>	

BINGO CORPORATION
Balance Sheet
As of Completion of Transaction #10

Assets		
Cash	\$ 28,000	Cash decreases \$6,000
Accounts receivable	6,000	
Building	<u>120,000</u>	
Total assets	<u>\$154,000</u>	
Liabilities		
Wages payable	\$ 3,000	
Notes payable	<u>92,000</u>	
Total liabilities	\$95,000	
Stockholders' equity		
Capital stock	\$50,000	
Retained earnings	<u>9,000</u>	
Total stockholders' equity	<u>59,000</u>	
Total Liabilities and equity	<u>\$154,000</u>	

(a)	Revenue		\$ 80,000
	Less expenses:		
	Wage expense	\$40,000	
	Rent expense	22,000	
	Utilities expense	<u>11,000</u>	<u>73,000</u>
	Net income		<u>\$ 7,000</u>
(b)	Beginning retained earnings		\$ 89,000
	Plus: Net income		<u>7,000</u>
			\$ 96,000
	Less: Dividends		<u>2,500</u>
	Ending retained earnings		<u>\$ 93,500</u>
	Capital stock		\$250,000
	Ending retained earnings		<u>93,500</u>
	Total stockholders' equity		<u>\$343,500</u>
	Accounts payable		\$ 12,500
	Notes payable		<u>50,000</u>
	Total liabilities		<u>\$ 62,500</u>
	Total liabilities		\$ 62,500
	Total stockholders' equity		<u>343,500</u>
	Total assets		<u>\$406,000</u>

- (c) If, indeed, \$5,000 of services were rendered on account, it should have been included in revenues. This would result in an increase in net income (and therefore retained earnings and total equity) to match the increase in total assets. Revenues are to be recorded as earned.

- (a)
&
(b)
- 1 -- (headings) The top line of the heading for each financial statement should include the name of the company (Efendi Company), not the name of the person who prepared the report.
- 2 -- (headings) The income statement and statement of retained earnings both relate to a period of time, and should be similarly dated (i.e., For the Year Ending December 31, 20X5). The balance sheet is at point in time, and you have dated it appropriately.
- 3 -- (headings) The statement you refer to as the "Equation Sheet" should be named the "Balance Sheet." Sometimes, you will see it called the Statement of Financial Position, but never refer to it as the equation sheet.
- 4 -- (income statement) Revenues reflect the gross amount for services to customers and net income is the bottom line after subtracting expenses. You have both captions (noted in bold) in the incorrect positions; the "net income" caption and the "revenues" caption need to be reversed.
- 5 -- (income statement) Dividends paid are not an expense and do not belong in the income statement. They should instead be subtracted on the statement of retained earnings. Please reposition them to the statement of retained earnings in the location currently showing the deduction for capital stock (see note 7 below).
- 6 -- (income statement) Insert the wages expense, currently shown in the balance sheet, as an expense on the income statement (where dividends were originally shown).
- 7 -- (statement of retained earnings) Include the dividend (see note 5 above), and remove the capital stock. The capital stock needs to be positioned in the balance sheet where "notes payable" is currently shown (see note 9 below).
- 8 -- (balance sheet) Move the "notes payable" from the stockholders' equity section to the liability section. Position the amount in the same location as "wages expense" originally appeared before the correction from note 6 above.
- 9 -- (balance sheet) Position the capital stock in the stockholders' equity section as described in note 7 above.
- 10 -- Perform a math check: revenues minus expenses should equal net income. The net income amount should also appear in the statement of retained earnings. The resulting ending retained earnings amount should appear in the balance sheet. Total assets should equal the sum of total liabilities and total equity.

(c)

EFENDI COMPANY
Income Statement
 For the Year Ending December 31, 20X5

Revenues		
Services to customers		\$125,000
Expenses		
Wages expense	\$64,000	
Rent	<u>11,000</u>	<u>75,000</u>
Net Income		<u>\$ 50,000</u>

EFENDI COMPANY
Statement of Retained Earnings
 For the Year Ending December 31, 20X5

Beginning retained earnings	\$45,000
Plus: Net income	<u>50,000</u>
	\$95,000
Less: Dividends	<u>13,500</u>
Ending retained earnings	<u>\$81,500</u>

EFENDI COMPANY
Balance Sheet
 December 31, 20X5

Assets		
Cash		\$ 92,700
Accounts receivable		37,400
Equipment		<u>239,000</u>
Total assets		<u>\$369,100</u>
Liabilities		
Accounts payable	\$ 7,500	
Notes payable	<u>80,100</u>	
Total liabilities		\$ 87,600
Stockholders' equity		
Capital stock	\$200,000	
Retained earnings	<u>81,500</u>	
Total stockholders' equity		<u>281,500</u>
Total liabilities and equity		<u>\$369,100</u>

Preparing financial statements and cash calculations based on a narrative

I-01.08

(a) - (b)

SKOUSEN EXPLORATION CORPORATION**Income Statement****For the Year Ending December 31, 20X3**

Revenues		
Services to customers		\$1,600,000
Expenses		
Rent	\$150,000	
Wages	810,000	
Interest	81,000	
Taxes	<u>215,000</u>	<u>1,256,000</u>
Net income		<u>\$ 344,000</u>

SKOUSEN EXPLORATION CORPORATION**Statement of Retained Earnings****For the Year Ending December 31, 20X3**

Beginning retained earnings	\$	-
Plus: Net income		<u>344,000</u>
		\$344,000
Less: Dividends		<u>75,000</u>
Ending retained earnings		<u>\$269,000</u>

(c)

Cash received:

From customers (\$1,600,000 - \$125,000)	\$1,475,000	
From stockholders	1,000,000	
From lenders	<u>750,000</u>	\$3,225,000

Cash payments:

For rent	\$ 140,000	
For wages	780,000	
For interest	75,000	
For taxes	215,000	
For dividends	75,000	
For land, building, equipment	1,000,000	
For repayment of loans	<u>50,000</u>	<u>2,335,000</u>

Ending cash \$ 890,000

(d)

SKOUSEN EXPLORATION CORPORATION

Balance Sheet

December 31, 20X3

Assets

Cash		\$ 890,000
Accounts receivable		125,000
Land		200,000
Building		500,000
Equipment		<u>300,000</u>
Total assets		<u>\$2,015,000</u>

Liabilities

Rent payable	\$ 10,000	
Wages payable	30,000	
Interest payable	6,000	
Loan payable	<u>700,000</u>	
Total liabilities		\$ 746,000

Stockholders' equity

Capital stock	\$1,000,000	
Retained earnings	<u>269,000</u>	
Total stockholders' equity		<u>1,269,000</u>
Total Liabilities and equity		<u>\$2,015,000</u>

- (a) Harish is unable to pay a \$28,000 dividend. The company only has \$4,000 in available cash.
- (b) In the short run, many things will cause net income to differ from cash provided by operations. For example, various revenues and expenses may have occurred but not yet be funded. In Harish's case, notice that \$15,000 of the revenues have not yet been collected, as evidenced by the increase in accounts receivable. Conversely, \$1,000 of the rent cost has not yet been paid, as evidenced by the rent payable liability.
- (c) A business will generate or expend cash from investing activities (like buying and selling property, investment securities, and so forth). A business will also have financing activities that can be a source or use of cash (examples include issuing stock, paying dividends, and borrowing/repaying loans).
- (d) At this point in their studies, most students will be challenged to prepare the following statement of cash flows! The student worksheet includes substantial preformatting to aid the process. Be sure to tell students to not be discouraged by this complex problem - focus on the central theme that this is an important financial statement. The preparation and use is the subject of a complete chapter much later in the book.

HARISH COMPANY
Statement of Cash Flows
For the Year Ending December 31, 20X1

Operating activities		
Cash received from customers	\$ 55,000	
Cash paid for wages	(30,000)	
Cash paid for rent	<u>(11,000)</u>	
Cash provided by operations		\$ 14,000
Investing activities		
Purchase of equipment		(50,000)
Financing activities		
Issue stock	\$ 10,000	
Proceeds of loan	<u>30,000</u>	<u>40,000</u>
Increase in cash		\$ 4,000
Cash, January 1		<u>-</u>
Cash, December 31		<u>\$ 4,000</u>

(c) Company Name:

Revenues \$ W

Income \$ X

Assets \$ Y

Liabilities \$ Z

	<u>Increased with a:</u>	<u>Decreased with a:</u>	<u>Normal Balance:</u>
(a) Cash	Debit	Credit	Debit
(b) Capital Stock	Credit	Debit	Credit
(c) Accounts Payable	Credit	Debit	Credit
(d) Revenues	Credit	Debit	Credit
(e) Rent Expense	Debit	Credit	Debit
(f) Equipment	Debit	Credit	Debit
(g) Dividends	Debit	Credit	Debit
(h) Utilities Expense	Debit	Credit	Debit
(i) Accounts Receivable	Debit	Credit	Debit
(j) Loan Payable	Credit	Debit	Credit

Basic journal entries

B-02.03

GENERAL JOURNAL			Page 1	
Date	Accounts	Debit		Credit
1-2-X5	Cash	10,000		
	Capital Stock			10,000
	<i>Issued stock to Mo Lambert for cash</i>			
1-4-X5	Equipment	7,500		
	Accounts Payable			7,500
	<i>Purchased equipment on account</i>			
1-12-X5	Cash	15,000		
	Revenues			15,000
	<i>Provided services to customers for cash</i>			
1-15-X5	Supplies Expense	2,000		
	Accounts Payable			2,000
	<i>Received bill for cost of supplies</i>			
1-18-X5	Accounts Receivable	3,200		
	Revenues			3,200
	<i>Provided services to customers on account</i>			
1-20-X5	Wage Expense	2,300		
	Cash			2,300
	<i>Paid wages of employees</i>			
1-22-X5	Cash	1,920		
	Accounts Receivable			1,920
	<i>Collected 60% of the amount due from the transaction of Jan. 18 ($\\$3,200 \times 60\% = \\$1,920$)</i>			

GENERAL JOURNAL			Page 2	
Date	Accounts	Debit		Credit
1-23-X5	Accounts Payable	3,000		
	Cash			3,000
	<i>Paid 40% of the amount due for the transaction of Jan. 4 ($\\$7,500 \times 40\% = \\$3,000$)</i>			
1-25-X5	Supplies Expense	600		
	Cash			600
	<i>Paid for supplies used</i>			
1-31-X5	Dividends	1,500		
	Cash			1,500
	<i>Paid dividends to Mo Lambert</i>			

This document is the first page from Yorkston's original general journal. The general journal provides a chronological history of the company's accounting transactions. The small check marks indicate that this information was subsequently posted to a ledger from which financial statements were likely prepared.

As you can see by looking at this document, journals are prepared in "debit-credit" form. A trained accountant is able to look at these debits and credits and deduce that the following events occurred during the earliest days of the company:

January 2, 1961	The owners invested \$25,000 to form the corporation, and were issued capital stock
January 3, 1961	Paint was purchased on account for \$500
January 5, 1961	Equipment was purchased for cash in the amount of \$1,200
January 7, 1961	\$200 was paid on the account payable balance
January 8, 1961	\$1,500 was earned (but not collected) for services to customers
January 9, 1961	Employees were paid \$400 for wages
January 11, 1961	\$400 was collected for work previously done

Posting entries to the ledger

B-02.05

Cash				
Date	Description	Debit	Credit	Balance
01-Jan-X5	Balance forward	-	-	-
02-Jan-X5	Journal Page 1	1,000,000	-	1,000,000
11-Jan-X5	Journal Page 1	-	10,000	990,000
15-Jan-X5	Journal Page 1	-	100,000	890,000
17-Jan-X5	Journal Page 2	150,000	-	1,040,000
18-Jan-X5	Journal Page 2	180,000	-	1,220,000
31-Jan-X5	Journal Page 2	-	100,000	1,120,000
31-Jan-X5	Journal Page 2	-	202,000	918,000

Accounts Receivable				
Date	Description	Debit	Credit	Balance
01-Jan-X5	Balance forward	-	-	-
06-Jan-X5	Journal Page 1	300,000	-	300,000
17-Jan-X5	Journal Page 2	-	150,000	150,000

Equipment				
Date	Description	Debit	Credit	Balance
01-Jan-X5	Balance forward	-	-	-
04-Jan-X5	Journal Page 1	200,000	-	200,000

Accounts Payable				
Date	Description	Debit	Credit	Balance
01-Jan-X5	Balance forward	-	-	-
07-Jan-X5	Journal Page 1	-	10,000	10,000
11-Jan-X5	Journal Page 1	10,000	-	-
20-Jan-X5	Journal Page 2	-	20,000	20,000

Loan Payable				
Date	Description	Debit	Credit	Balance
01-Jan-X5	Balance forward	-	-	-
04-Jan-X5	Journal Page 1	-	200,000	200,000
31-Jan-X5	Journal Page 2	200,000	-	-

Capital Stock				
Date	Description	Debit	Credit	Balance
01-Jan-X5	Balance forward	-	-	-
02-Jan-X5	Journal Page 1	-	1,000,000	1,000,000

Revenues				
Date	Description	Debit	Credit	Balance
01-Jan-X5		-	-	-
06-Jan-X5	Journal Page 1	-	300,000	300,000
18-Jan-X5	Journal Page 2	-	180,000	480,000

Supplies Expense				
Date	Description	Debit	Credit	Balance
01-Jan-X5		-	-	-
07-Jan-X5	Journal Page 1	10,000	-	10,000
20-Jan-X5	Journal Page 2	20,000	-	30,000

Wage Expense				
Date	Description	Debit	Credit	Balance
01-Jan-X5		-	-	-
15-Jan-X5	Journal Page 1	100,000	-	100,000
31-Jan-X5	Journal Page 2	100,000	-	200,000

Interest Expense				
Date	Description	Debit	Credit	Balance
01-Jan-X5		-	-	-
31-Jan-X5	Journal Page 2	2,000	-	2,000

*Trial balance preparation**B-02.06*

	<u>Debits</u>	<u>Credits</u>
Cash	\$219,000	
Accounts receivable	15,000	
Land	75,000	
Salaries payable		\$ 18,000
Capital stock		250,000
Revenues		81,000
Supplies expense	3,000	
Utilities expense	4,000	
Salaries expense	33,000	
	<u>\$349,000</u>	<u>\$349,000</u>

The total salaries expense is \$33,000 -- the amount necessary to bring the trial balance into balance. Targus was profitable, because revenues (\$81,000) exceeded expenses (\$3,000 + \$4,000 + \$33,000 = \$40,000).

Professor Drebin's Executive MBA students had very interesting observations that were mostly correct.

The professor would likely want to comment on Fletcher's observation. A textual description would still be needed for each account. Otherwise, it would be very difficult to translate the account information into useful financial statements. Basically, everyone would then have the same interpretative struggle experienced by Susie.

Jana is also incorrect. Individual companies can, and do, adopt whatever numbering sequence they choose. There are general similarities in the conceptual structure from one company to the next, but the specifics vary greatly from entity to entity.

CASH			
1/1/X1	85,000	763	#4
#1	15,230	23,900	#5
#3	19,410		

REVENUES		
	15,230	#1
	48,654	#6

ACCOUNTS RECEIVABLE			
1/1/X1	54,300	19,410	#3
#6	48,654		
	102,954	19,410	
	<u>83,544</u>		

SUPPLIES EXPENSE		
#2	2,400	

ACCOUNTS PAYABLE			
#5	23,900	31,275	1/1/X1
		2,400	#2
	23,900	33,675	
		<u>9,775</u>	

UTILITIES EXPENSE		
#4	763	

The T-accounts reveal that ending Accounts Receivable amount to \$83,544, and ending Accounts Payable amount to \$9,775.

(a) Below are the subsidiary ledgers for each customer:

Accounts Receivable		CUSTOMER #1		
Date	Description	Debit	Credit	Balance
May 1	Balance forward	1,403	-	1,403
May 5	Purchase -- Journal page X	7,237	-	8,640
May 17	Payment -- Journal page X	-	1,403	7,237

Accounts Receivable		CUSTOMER #2		
Date	Description	Debit	Credit	Balance
May 1	Balance forward	5,275	-	5,275
May 15	Purchase -- Journal page X	2,275	-	7,550
May 26	Payment -- Journal page X	-	4,275	3,275

Accounts Receivable		CUSTOMER #3		
Date	Description	Debit	Credit	Balance
May 1	Balance forward	-	-	-
May 9	Purchase -- Journal page X	9,550	-	9,550

Accounts Receivable		CUSTOMER #4		
Date	Description	Debit	Credit	Balance
May 1	Balance forward	7,557	-	7,557
May 7	Purchase -- Journal page X	2,100	-	9,657
May 11	Payment -- Journal page X	-	7,557	2,100
May 22	Purchase -- Journal page X	9,444	-	11,544

Accounts Receivable		CUSTOMER #5		
Date	Description	Debit	Credit	Balance
May 1	Balance forward	2,990	-	2,990
May 18	Payment -- Journal page X	-	2,990	-

(b) Below is the general ledger account:

Accounts Receivable				
Date	Description	Debit	Credit	Balance
01-Jan-05	Balance forward	-	-	17,225
May 5	Purchase -- Journal page X	7,237	-	24,462
May 7	Purchase -- Journal page X	2,100	-	26,562
May 9	Purchase -- Journal page X	9,550	-	36,112
May 11	Payment -- Journal page X	-	7,557	28,555
May 15	Purchase -- Journal page X	2,275	-	30,830
May 17	Payment -- Journal page X	-	1,403	29,427
May 18	Payment -- Journal page X	-	2,990	26,437
May 22	Purchase -- Journal page X	9,444	-	35,881
May 26	Payment -- Journal page X	-	4,275	31,606

The Accounts Receivable general ledger account balance of \$31,606 is in agreement with the sum of the individual subsidiary accounts ($\$7,237 + \$3,275 + \$9,550 + \$11,544 = \$31,606$). This is an important reconciliation that should occur on a regular basis. Modern computer systems, including data base driven processes, have greatly reduced the frustration of maintaining subsidiary accounts that synchronize with control accounts.

(c)

Subsidiary ledgers provide detailed information about the transactions with specific customers, vendors, and so forth. They enable one to know exactly what comprises a general ledger account balance. This information is very useful for many purposes, including preparing monthly billing statements for specific customers. Subsidiary ledgers might also be maintained for accounts payable, cash (if multiple bank accounts are in use), property assets (to track individual items of equipment in use by the business), capital stock (to track ownership of individual shareholders), and the like.

(d)

Customer #2 is delinquent. This customer owed \$5,275 at the beginning of May, but only paid \$4,275 during the month. A portion of the beginning balance has been outstanding for more than the agreed 30-day period. Customer #4's balance exceeds the \$10,000 credit limit.

Involved Solutions

I-02.01

Preparing journal entries, posting, and a trial balance

(a)

GENERAL JOURNAL				Page 1	
Date	Accounts		Debit		Credit
June 2	Cash	✓	25,000		
	Capital Stock	✓			25,000
	<i>Tom Pryor invested \$25,000 cash in the capital stock of the newly formed corporation.</i>				
June 8	Supplies Expense	✓	750		
	Accounts Payable	✓			750
	<i>Purchased (and immediately used) office supplies on account for \$750.</i>				
June 9	Cash	✓	2,500		
	Revenues	✓			2,500
	<i>Received \$2,500 from Pomero for work performed to date.</i>				
June 15	Travel Expense	✓	1,200		
	Cash	✓			1,200
	<i>Paid \$1,200 for travel costs associated with consultation work.</i>				
June 16	Accounts Receivable	✓	3,000		
	Revenues	✓			3,000
	<i>Provided services on account to Arpy for \$3,000.</i>				
June 17	Salary Expense	✓	1,500		
	Cash	✓			1,500
	<i>Paid \$1,500 to administrative assistant for salary.</i>				

GENERAL JOURNAL				Page 2	
Date	Accounts		Debit		Credit
June 23	Accounts Receivable	✓	4,000		
	Revenues	✓			4,000
	<i>Billed Farris for \$4,000 consulting engagement performed.</i>				
June 25	Dividends	✓	1,000		
	Cash	✓			1,000
	<i>The company paid Tom Pryor a \$1,000 dividend.</i>				
June 26	Cash	✓	2,000		
	Accounts Receivable	✓			2,000
	<i>Collected 50% of the amount due for the billing on June 23.</i>				
June 27	Equipment	✓	4,000		
	Cash	✓			1,000
	Accounts Payable	✓			3,000
	<i>Purchased computer furniture for \$4,000, paying \$1,000 down.</i>				
June 27	Accounts Payable	✓	750		
	Cash	✓			750
	<i>Paid \$750 on the open account relating to the June 8 purchase.</i>				
June 28	Accounts Receivable	✓	5,000		
	Revenues	✓			5,000
	<i>Completed the Pomero job and billed the remaining amount.</i>				

GENERAL JOURNAL				Page 3	
Date	Accounts		Debit		Credit
June 30	Salary Expense	✓	1,500		
	Cash	✓			1,500
	<i>Paid \$1,500 to administrative assistant for salary.</i>				
June 30	Rent Expense	✓	1,000		
	Cash	✓			1,000
	<i>Paid rent for June, \$1,000.</i>				

(b)

Cash				
Date	Description	Debit	Credit	Balance
June 1	Balance forward	-	-	-
June 2	Journal Page 1	25,000	-	25,000
June 9	Journal Page 1	2,500	-	27,500
June 15	Journal Page 1	-	1,200	26,300
June 17	Journal Page 1	-	1,500	24,800
June 25	Journal Page 2	-	1,000	23,800
June 26	Journal Page 2	2,000	-	25,800
June 27	Journal Page 2	-	1,000	24,800
June 27	Journal Page 2	-	750	24,050
June 30	Journal Page 3	-	1,500	22,550
June 30	Journal Page 3	-	1,000	21,550

Accounts Receivable				
Date	Description	Debit	Credit	Balance
June 1	Balance forward	-	-	-
June 16	Journal Page 1	3,000	-	3,000
June 23	Journal Page 2	4,000	-	7,000
June 26	Journal Page 2	-	2,000	5,000
June 28	Journal Page 2	5,000	-	10,000

Equipment				
Date	Description	Debit	Credit	Balance
June 1	Balance forward	-	-	-
June 27	Journal Page 2	4,000	-	4,000

Accounts Payable				
Date	Description	Debit	Credit	Balance
June 1	Balance forward	-	-	-
June 8	Journal Page 1	-	750	750
June 27	Journal Page 2	-	3,000	3,750
June 27	Journal Page 2	750	-	3,000

Capital Stock				
Date	Description	Debit	Credit	Balance
June 1	Balance forward	-	-	-
June 2	Journal Page 1	-	25,000	25,000

Dividends				
Date	Description	Debit	Credit	Balance
June 1		-	-	-
June 25	Journal Page 2	1,000	-	1,000

Revenues				
Date	Description	Debit	Credit	Balance
June 1		-	-	-
June 9	Journal Page 1	-	2,500	2,500
June 16	Journal Page 1	-	3,000	5,500
June 23	Journal Page 2	-	4,000	9,500
June 28	Journal Page 2	-	5,000	14,500

Salary Expense				
Date	Description	Debit	Credit	Balance
June 1		-	-	-
June 17	Journal Page 1	1,500	-	1,500
June 30	Journal Page 3	1,500	-	3,000

Rent Expense				
Date	Description	Debit	Credit	Balance
June 1		-	-	-
June 30	Journal Page 3	1,000	-	1,000

Travel Expense				
Date	Description	Debit	Credit	Balance
June 1		-	-	-
June 15	Journal Page 1	1,200	-	1,200

Supplies Expense				
Date	Description	Debit	Credit	Balance
June 1		-	-	-
June 8	Journal Page 1	750	-	750

(c)

TOM PRYOR CONSULTING
Trial Balance
June 30, 20XX

	Debits	Credits
Cash	\$21,550	\$ -
Accounts receivable	10,000	-
Equipment	4,000	-
Accounts payable	-	3,000
Capital stock	-	25,000
Revenues	-	14,500
Salary expense	3,000	-
Rent expense	1,000	-
Travel expense	1,200	-
Supplies expense	750	-
Dividends	1,000	-
	<u>\$42,500</u>	<u>\$42,500</u>

(a)

GENERAL JOURNAL			Page
Date	Accounts	Debit	Credit
March	Cash	30,000	
	Capital Stock		30,000
	<i>Issue capital stock for cash</i>		
	Land	50,000	
	Loan Payable		50,000
	<i>Purchased land with loan</i>		
	Interest Expense	400	
	Cash		400
	<i>Paid interest costs on loan</i>		
	Rent Expense	1,500	
	Rent Payable		1,500
	<i>To record rent due and payable</i>		
	Salaries Expense	2,000	
	Supplies Expense	3,300	
	Utilities Expense	700	
	Cash		6,000
	<i>To record various expenses paid</i>		
	Cash	26,315	
	Revenues		26,315
	<i>Services provided to customers</i>		
	Accounts Receivable	9,500	
	Revenues		9,500
	<i>Services provided on account</i>		

(b)

CASH	
30,000	400
26,315	6,000
56,315	6,400
49,915	

ACCOUNTS RECEIVABLE	
9,500	

LAND	
50,000	

RENT PAYABLE	
	1,500

LOAN PAYABLE	
	50,000

CAPITAL STOCK	
	30,000

REVENUES	
	26,315
	9,500
	35,815

INTEREST EXPENSE	
400	

RENT EXPENSE	
1,500	

SALARIES EXPENSE	
2,000	

SUPPLIES EXPENSE	
3,300	

UTILITIES EXPENSE	
700	

(c)

PAUL MORRIS VETERINARY
Trial Balance
As of March 31, 20XX

	Debits	Credits
Cash	\$ 49,915	\$ -
Accounts receivable	9,500	-
Land	50,000	-
Rent payable	-	1,500
Loan payable	-	50,000
Capital stock	-	30,000
Revenues	-	35,815
Interest expense	400	
Rent expense	1,500	-
Salaries expense	2,000	-
Supplies expense	3,300	-
Utilities expense	700	-
	<u>\$117,315</u>	<u>\$117,315</u>

(d)

PAUL MORRIS CORPORATION
Income Statement
For the Month Ending March 31, 20XX

Revenues		
Services to customers		\$35,815
Expenses		
Interest	\$ 400	
Rent	1,500	
Salaries	2,000	
Supplies	3,300	
Utilities	<u>700</u>	<u>7,900</u>
Net income		<u><u>\$27,915</u></u>

PAUL MORRIS CORPORATION
Statement of Retained Earnings
For the Month Ending March 31, 20XX

Beginning retained earnings	\$ -
Plus: Net income	<u>27,915</u>
	\$27,915
Less: Dividends	<u>-</u>
Ending retained earnings	<u><u>\$27,915</u></u>

PAUL MORRIS CORPORATION
Balance Sheet
March 31, 20XX

Assets		
Cash		\$ 49,915
Accounts receivable		9,500
Land		<u>50,000</u>
Total assets		<u><u>\$109,415</u></u>
Liabilities		
Rent payable	\$ 1,500	
Loan payable	<u>50,000</u>	
Total liabilities		\$ 51,500
Stockholders' equity		
Capital stock	\$30,000	
Retained earnings	<u>27,915</u>	
Total stockholders' equity		<u><u>57,915</u></u>
Total liabilities and equity		<u><u>\$109,415</u></u>

This problem will have many different solutions and approaches. No worksheet is provided.

This problem presents an excellent opportunity for teams to present their solutions to the class. Have them discuss the accounting issues they learned about, the information system innovations they may have developed, and the challenges and benefits of working as a team. Emphasize that team work is essential in large organizations, and that the frustrations they encountered on this problem are typical of most work environments. You might consider closing the discussion by talking about the role of internal versus independent auditors and show the independent audit report from an actual company (numerous examples are available online).

(a), (c)

Cash				
Date	Description	Debit	Credit	Balance
Jan. 1	Balance forward	-	-	25,000
Jan. 2	Journal Page 1	10,000	-	35,000
Jan. 3	Journal Page 1	-	20,000	15,000
Jan. 7	Journal Page 1	12,000	-	27,000
Jan. 11	Journal Page 1	-	3,000	24,000
Jan. 12	Journal Page 1	11,000	-	35,000
Jan. 17	Journal Page 2	-	2,500	32,500
Jan. 20	Journal Page 2	-	1,700	30,800
Jan. 23	Journal Page 2	-	4,000	26,800
Jan. 24	Journal Page 2	-	16,000	10,800
Jan. 29	Journal Page 2	50,000	-	60,800
Jan. 31	Journal Page 3	-	22,000	38,800
Jan. 31	Journal Page 3	-	600	38,200

Accounts Receivable				
Date	Description	Debit	Credit	Balance
Jan. 1	Balance forward	-	-	75,000
Jan. 2	Journal Page 1	-	10,000	65,000
Jan. 5	Journal Page 1	15,000	-	80,000
Jan. 29	Journal Page 2	-	50,000	30,000

Land				
Date	Description	Debit	Credit	Balance
Jan. 1	Balance forward	-	-	150,000
Jan. 3	Journal Page 1	20,000	-	170,000

Accounts Payable				
Date	Description	Debit	Credit	Balance
Jan. 1	Balance forward	-	-	60,000
Jan. 15	Journal Page 2	-	2,000	62,000
Jan. 24	Journal Page 2	16,000	-	46,000

Loan Payable				
Date	Description	Debit	Credit	Balance
Jan. 1	Balance forward	-	-	30,000
Jan. 7	Journal Page 1	-	12,000	42,000
Jan. 31	Journal Page 3	22,000	-	20,000

Capital Stock				
Date	Description	Debit	Credit	Balance
Jan. 1	Balance forward	-	-	50,000

Retained Earnings				
Date	Description	Debit	Credit	Balance
Jan. 1	Balance forward	-	-	110,000

Dividends				
Date	Description	Debit	Credit	Balance
Jan. 1		-	-	-
Jan. 17	Journal Page 2	2,500	-	2,500

Revenues				
Date	Description	Debit	Credit	Balance
Jan. 1		-	-	-
Jan. 5	Journal Page 1	-	15,000	15,000
Jan. 12	Journal Page 1	-	11,000	26,000

Salaries Expense				
Date	Description	Debit	Credit	Balance
Jan. 1		-	-	-
Jan. 11	Journal Page 1	3,000	-	3,000
Jan. 23	Journal Page 2	4,000	-	7,000

Supplies Expense				
Date	Description	Debit	Credit	Balance
Jan. 1		-	-	-
Jan. 15	Journal Page 2	2,000	-	2,000

Rent Expense				
Date	Description	Debit	Credit	Balance
Jan. 1		-	-	-
Jan. 20	Journal Page 2	1,700	-	1,700

Interest Expense				
Date	Description	Debit	Credit	Balance
Jan. 1		-	-	-
Jan. 31	Journal Page 3	600	-	600

(b)

GENERAL JOURNAL			Page 1	
Date	Accounts		Debit	Credit
Jan. 2	Cash	✓	10,000	
	Accounts Receivable	✓		10,000
	<i>Collected \$10,000 on an open account receivable</i>			
Jan. 3	Land	✓	20,000	
	Cash	✓		20,000
	<i>Purchased additional tract of land for \$20,000 cash</i>			
Jan. 5	Accounts Receivable	✓	15,000	
	Revenues	✓		15,000
	<i>Provided services on account to a customer for \$15,000</i>			
Jan. 7	Cash	✓	12,000	
	Loan Payable	✓		12,000
	<i>Borrowed \$12,000 on a term loan payable</i>			
Jan. 11	Salaries Expense	✓	3,000	
	Cash	✓		3,000
	<i>Paid salaries of \$3,000</i>			
Jan. 12	Cash	✓	11,000	
	Revenues	✓		11,000
	<i>Provided services to customers for cash, \$11,000</i>			

GENERAL JOURNAL				Page 2
Date	Accounts		Debit	Credit
Jan. 15	Supplies Expense	✓	2,000	
	Accounts Payable	✓		2,000
	<i>Purchased (and used) office supplies on account, \$2,000</i>			
Jan. 17	Dividends	✓	2,500	
	Cash	✓		2,500
	<i>The company paid shareholders a \$2,500 dividend</i>			
Jan. 20	Rent Expense	✓	1,700	
	Cash	✓		1,700
	<i>Paid rent of \$1,700</i>			
Jan. 23	Salaries Expense	✓	4,000	
	Cash	✓		4,000
	<i>Paid salaries of \$4,000</i>			
Jan. 24	Accounts Payable	✓	16,000	
	Cash	✓		16,000
	<i>Paid \$16,000 on the open accounts payable</i>			
Jan. 29	Cash	✓	50,000	
	Accounts Receivable	✓		50,000
	<i>Collected \$50,000 on accounts receivable</i>			

GENERAL JOURNAL				Page 3
Date	Accounts		Debit	Credit
Jan. 31	Loan Payable	✓	22,000	
	Cash	✓		22,000
	<i>Repaid loans of \$22,000</i>			
Jan. 31	Interest Expense	✓	600	
	Cash	✓		600
	<i>Paid interest on loans of \$600</i>			

(d)

MORGAN CORPORATION
Trial Balance
January 31, 20X6

	Debits	Credits
Cash	\$ 38,200	\$ -
Accounts receivable	30,000	-
Land	170,000	-
Accounts payable	-	46,000
Loan payable		20,000
Capital stock	-	50,000
Retained earnings		110,000
Revenues	-	26,000
Salaries expense	7,000	-
Supplies expense	2,000	-
Rent expense	1,700	-
Interest expense	600	-
Dividends	2,500	-
	<u>\$252,000</u>	<u>\$252,000</u>

(e)

MORGAN CORPORATION
Income Statement
For the Month Ending January 31, 20X6

Revenues		
Services to customers		\$26,000
Expenses		
Salaries	\$7,000	
Supplies	2,000	
Rent	1,700	
Interest	<u>600</u>	<u>11,300</u>
Net income		<u>\$14,700</u>

MORGAN CORPORATION
Statement of Retained Earnings
For the Month Ending January 31, 20X6

Beginning retained earnings	\$110,000
Plus: Net income	<u>14,700</u>
	\$124,700
Less: Dividends	<u>2,500</u>
Ending retained earnings	<u>\$122,200</u>

MORGAN CORPORATION
Balance Sheet
January 31, 20X6

Assets		
Cash		\$ 38,200
Accounts receivable		30,000
Land		<u>170,000</u>
Total assets		<u>\$238,200</u>
Liabilities		
Accounts payable	\$ 46,000	
Loan payable	<u>20,000</u>	
Total liabilities		\$ 66,000
Stockholders' equity		
Capital stock	\$ 50,000	
Retained earnings	<u>122,200</u>	
Total stockholders' equity		<u>172,200</u>
Total liabilities and equity		<u>\$238,200</u>

(a)

The following schedule reveals the corrected revenue calculations. Moncrief owes an additional \$836 in gross receipts tax $((\$1,323,600 - \$1,240,000) \times 1\%)$.

Gross receipts as reported	\$1,240,000
Fact 1: Remove stockholder investments	(150,000)
Fact 2: Remove interest income	(25,000)
Fact 3: Remove deposit error	(900)
Fact 4: Add cash revenues never deposited	24,700
Fact 5: Remove refund included in revenues	(1,200)
Fact 6: Remove tax refund deposit	(14,000)
Fact 7: Remove customer deposit refunded	(10,000)
Fact 8: Subtract collections of beginning receivables	(130,000)
Fact 8: Add services provided on account not yet collected	<u>390,000</u>
Corrected gross receipts	<u>\$1,323,600</u>

(b)

GENERAL JOURNAL				Page
Date	Accounts	Debit	Credit	
Fact 1	Cash	150,000		
	Capital Stock		150,000	
	<i>Record stockholder investment</i>			
Fact 2	Cash	25,000		
	Interest Revenue		25,000	
	<i>Record interest earnings</i>			
Fact 3	No entry			
	<i>Bank error only</i>			
Fact 4	Cash	24,700		
	Revenues		24,700	
	<i>Record service provided for cash</i>			

GENERAL JOURNAL				Page
Date	Accounts	Debit	Credit	
Fact 5	Cash	1,200		
	Supplies Expense		1,200	
	<i>Reduce supplies for refund</i>			
Fact 6	Cash	14,000		
	Tax Expense		14,000	
	<i>Reduce taxes for refund</i>			
Fact 7	<i>No net adjustment needed</i>			
Fact 8	Cash	130,000		
	Accounts Receivable		130,000	
	<i>Record collection of receivables</i>			
Fact 8	Accounts Receivable	390,000		
	Revenues		390,000	
	<i>Services provided on account</i>			
Balance	Cash	908,900		
	Revenues		908,900	
	<i>All other revenues (\$1,323,600 - \$24,700 - \$390,000 = \$908,900)</i>			

(c)

Revenues				
Date	Description	Debit	Credit	Balance
	Balance forward	-	-	-
	Fact 4	-	24,700	24,700
	Fact 8	-	390,000	414,700
	Balance	-	908,900	1,323,600

WILLIAMS CORPORATION
Trial Balance
December 31, 20X1

	Debits	Credits
Cash	\$ 123,432	\$ -
Accounts receivable	77,909	-
Land	688,004	-
Accounts payable	-	34,111
Loan payable	-	76,500
Capital stock	-	345,000
Retained earnings	-	456,332
Revenues	-	789,998
Wages expense	575,988	-
Supplies expense	104,300	-
Rent expense	112,654	-
Interest expense	5,654	-
Dividends	14,000	-
	<u>\$1,701,941</u>	<u>\$1,701,941</u>

- Error # 1** All accounts have normal balances, but two amounts are in wrong columns!
 Land and Wages Expense have both moved to the correct debit column.
- Error # 2** Services provided on account for \$1,500 was debited to Accounts Payable and credited to Revenues.
 Accounts payable should not have been debited. It has been credited (increased) by \$1,500. Accounts Receivable should have been debited. It has been debited (increased) by \$1,500.
- Error # 3** Supplies Expense of \$104,300 was completely omitted from the trial balance.
 Supplies Expense of \$104,300 was been inserted in the trial balance.
- Error # 4** The amount recorded for Revenues was transposed. It should have been \$789,998.
 Revenues have been changed to the correct amount.
- Error # 5** A \$5,000 shareholder investment was debited to Cash and credited to Dividends.
 Capital Stock should have credited instead of Dividends. The Dividends account has been debited and Capital stock credited for \$5,000 to correct this error.
- Error # 6** An interest payment of \$1,000 was debited to Loan Payable for \$100 and credited to Cash for \$1,000.
 Interest Expense is debited \$1,000. Loan Payable is increased by \$100.

LEI HAN CORPORATION
Income Statement
For the 16 Days Ending January 16, 20X7

Revenues		
Services to customers	\$15,000	
Interest income	—	\$15,000
Expenses		
Salaries	\$ 7,000	
Utilities	2,000	
Rent	—	
Miscellaneous	—	9,000
Net income		<u>\$ 6,000</u>

LEI HAN CORPORATION
Statement of Retained Earnings
For the 16 Days Ending January 16, 20X7

Beginning retained earnings	\$ -
Plus: Net income	<u>6,000</u>
	\$6,000
Less: Dividends	—
Ending retained earnings	<u>\$6,000</u>

LEI HAN CORPORATION
Balance Sheet
January 16, 20X7

Assets		
Cash		\$27,000
Accounts receivable		6,000
Land		<u>30,000</u>
Total assets		<u>\$63,000</u>
Liabilities		
Accounts payable	\$ 2,000	
Loan payable	<u>30,000</u>	
Total liabilities		\$32,000
Stockholders' equity		
Capital stock	\$25,000	
Retained earnings	<u>6,000</u>	
Total stockholders' equity		<u>31,000</u>
Total liabilities and equity		<u>\$63,000</u>

(a)

CASH			
#1	50,000	20,000	#2
#4	15,000	5,000	#3
#9	4,000	2,000	#5
		8,000	#6
		6,000	#10
	<hr/>	<hr/>	
	69,000	41,000	
	<hr/>		
	28,000		
	<hr/>		

NOTES PAYABLE			
#6	8,000	100,000	#2
	<hr/>	<hr/>	
	8,000	100,000	
		<hr/>	
		92,000	
		<hr/>	

CAPITAL STOCK			
		50,000	#1
		<hr/>	

ACCOUNTS RECEIVABLE			
#7	10,000	4,000	#9
	<hr/>	<hr/>	
	10,000	4,000	
	<hr/>		
	6,000		
	<hr/>		

REVENUES			
		15,000	#4
		10,000	#7
		<hr/>	
		25,000	
		<hr/>	

BUILDING			
#2	<hr/>		
	120,000		
	<hr/>		

WAGES EXPENSE			
#3	5,000		
#8	3,000		
	<hr/>		
	8,000		
	<hr/>		

WAGES PAYABLE			
		<hr/>	
		3,000	#8
		<hr/>	

UTILITIES EXPENSE			
#5	<hr/>		
	2,000		
	<hr/>		

DIVIDENDS			
#10	<hr/>		
	6,000		
	<hr/>		

(b)

BINGO CORPORATION**Trial Balance
Month XX, 20XX**

	Debits	Credits
Cash	\$ 28,000	\$ -
Accounts receivable	6,000	-
Building	120,000	-
Wages payable	-	3,000
Note payable	-	92,000
Capital stock	-	50,000
Revenues	-	25,000
Wages expense	8,000	-
Utilities expense	2,000	-
Dividends	6,000	-
	<u>\$170,000</u>	<u>\$170,000</u>

(c)

BINGO CORPORATION
Income Statement
For the Month Ending Month XX, 20XX

Revenues		
Services to customers		\$25,000
Expenses		
Wages	\$8,000	
Utilities	<u>2,000</u>	<u>10,000</u>
Net income		<u>\$15,000</u>

BINGO CORPORATION
Statement of Retained Earnings
For the Month Ending Month XX, 20XX

Beginning retained earnings	\$ -
Plus: Net income	<u>15,000</u>
	\$15,000
Less: Dividends	<u>6,000</u>
Ending retained earnings	<u>\$ 9,000</u>

BINGO CORPORATION
Balance Sheet
Month XX, 20XX

Assets		
Cash		\$ 28,000
Accounts receivable		6,000
Building		<u>120,000</u>
Total assets		<u>\$154,000</u>
Liabilities		
Wages payable	\$ 3,000	
Note payable	<u>92,000</u>	
Total liabilities		\$ 95,000
Stockholders' equity		
Capital stock	\$50,000	
Retained earnings	<u>9,000</u>	
Total stockholders' equity		<u>59,000</u>
Total liabilities and equity		<u>\$154,000</u>

(d)

A quality information system is necessary to capture and document activity. T-accounts are fine for illustrations and analysis, but would be inadequate for processing in a comprehensive business environment.

Chapter 3 Solutions

Basic Solutions

Terminology

B-03.01

- | | | | |
|------|------------------------|-----|---|
| (1) | Depreciation | (h) | A systematic and rational allocation scheme to spread a portion of the total cost of a productive asset to each period of use. |
| (2) | Calendar Year | (d) | An annual reporting period that runs from January 1 through December 31. |
| (3) | Revenue Recognition | (a) | The basic conditions require that an exchange has occurred and the earnings process is complete. |
| (4) | Cash Basis | (j) | A simplified non-GAAP based method to record revenues as received and expenses as paid. |
| (5) | Prepays | (b) | An asset reflecting advance payment for something that will be consumed over the future. |
| (6) | Unearned Revenue | (e) | Monies collected from customers for services that have not yet been provided. |
| (7) | Balance Sheet Approach | (f) | An approach that results in the initial recording of prepaids to an asset account and unearned revenues to a liability account. |
| (8) | Adjusting Entry | (c) | An entry usually prepared coincident with the end of an accounting period to update the accounting for prepaids, accruals, and other allocations. |
| (9) | Accruals | (i) | Expenses and revenues that gradually accumulate with the passage of time. |
| (10) | Periodicity Assumption | (g) | The notion that a continuous business process can be divided into time intervals such as years, quarters, or months for reporting purposes. |

"NOT OK"

Revenue should not be recorded during 20X5 for the following three items:

- (1) Goods were sold and shipped in late 20X5, but the product still requires substantial installation and setup services. The price and terms of sale stipulate that seller must satisfactorily complete all installation and setup at the buyer's location.
- (2) Goods were produced according to a customer purchase order but had not yet been shipped by the end of 20X5.
- (5) Advance payment from a customer in a foreign country was received in 20X5 for services to be provided in 20X6.

"OK"

Revenue should be recorded during 20X5 for the following three items:

- (3) Goods were delivered to customers during early 20X5, but the customers had ordered and paid for the goods during 20X4.
- (4) Customers purchased goods and services during late 20X5, but credit terms permitted them to delay payment until early 20X6. Full payment is expected eventually.
- (6) Goods were purchased and paid for by customers during 20X5, but customers may return defective goods for warranty work or a refund. The expected warranty/refund claims are subject to reasonable estimation and not anticipated to be significant.

Associating cause and effect

- (2) The cost of merchandise sold to customers.
- (4) The cost of a rebate offered on goods sold to customers.
- (6) Commissions paid to a sales person.
- (8) The cost of paper used by a publishing company.

Systematic and rational allocation

- (1) The cost of a building used in the business.
- (3) Rental costs under a three-year lease agreement.

Immediate recognition

- (5) An uninsured storm loss.
- (7) Cost of land seized as the result of a change in government in a foreign venue.
- (9) The cost of an unfavorable verdict in a civil lawsuit.

B-03.04

Prepaid expenses

GENERAL JOURNAL

Date	Accounts	Debit	Credit
1-Jun	Prepaid Insurance	18,000	
	Cash		18,000
	<i>Purchased 18-month policy</i>		
31-Dec	Insurance Expense	7,000	
	Prepaid Insurance		7,000
	<i>To record expiration of 7 months of coverage (7/18 X \$18,000)</i>		

GENERAL JOURNAL

Date	Accounts	Debit	Credit
various	Supplies	30,000	
	Cash		30,000
	<i>Purchased supplies</i>		
31-Dec	Supplies Expense	37,000	
	Supplies		37,000
	<i>To record supplies used (\$20,000 beginning + \$30,000 purchased - \$13,000 remaining)</i>		

GENERAL JOURNAL

Date	Accounts	Debit	Credit
16-Dec	Prepaid Rent	2,500	
	Cash		2,500
	<i>Rented a truck for 60 days</i>		
31-Dec	Rent Expense	625	
	Prepaid Rent		625
	<i>To record use of truck for 15 days (15/60 X \$2,500)</i>		

Depreciation

B-03.05

(a)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
20X1	Depreciation Expense	20,000,000	
	Accumulated Depreciation		20,000,000
	<i>To record 20X1 depreciation (80,000,000/4 = 20,000,000)</i>		
20X2	Depreciation Expense	20,000,000	
	Accumulated Depreciation		20,000,000
	<i>To record 20X2 depreciation (80,000,000/4 = 20,000,000)</i>		
20X3	Depreciation Expense	20,000,000	
	Accumulated Depreciation		20,000,000
	<i>To record 20X3 depreciation (80,000,000/4 = 20,000,000)</i>		
20X4	Depreciation Expense	20,000,000	
	Accumulated Depreciation		20,000,000
	<i>To record 20X4 depreciation (80,000,000/4 = 20,000,000)</i>		

(b), (c)

ALIDINI CORPORATION
Income Statement
For the Year Ending December 31, 20X1

...		
Expenses		
...		
Depreciation	20,000,000	
...		

ALIDINI CORPORATION
Balance Sheet
December 31, 20X1

Assets		
...		
Cooling chamber	80,000,000	
Less: Accumulated depreciation	<u>(20,000,000)</u>	60,000,000
...		

ALIDINI CORPORATION
Income Statement
For the Year Ending December 31, 20X2

...		
Expenses		
...		
Depreciation	20,000,000	
...		

ALIDINI CORPORATION
Balance Sheet
December 31, 20X2

Assets		
...		
Cooling chamber	80,000,000	
Less: Accumulated depreciation	<u>(40,000,000)</u>	40,000,000
...		

ALIDINI CORPORATION
Income Statement
For the Year Ending December 31, 20X3

...
Expenses

...
Depreciation 20,000,000
...

ALIDINI CORPORATION
Balance Sheet
December 31, 20X3

Assets

...
Cooling chamber 80,000,000
Less: Accumulated depreciation (60,000,000) 20,000,000
...

ALIDINI CORPORATION
Income Statement
For the Year Ending December 31, 20X4

...
Expenses

...
Depreciation 20,000,000
...

ALIDINI CORPORATION
Balance Sheet
December 31, 20X4

Assets

...
Cooling chamber 80,000,000
Less: Accumulated depreciation (80,000,000) -
...

B-03.06

Unearned revenue

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
1-Sep	Cash		24,000	
	Unearned Advertising Revenue			24,000
	<i>Sold 6-month ad campaign</i>			
31-Dec	Unearned Advertising Revenue		8,000	
	Advertising Revenue			8,000
	<i>To record delivery of ad services for 2 months (2/6 X \$24,000)</i>			

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
various	Cash		1,230,000	
	Unearned Subscription Revenue			1,230,000
	<i>Sold advance subscriptions</i>			
31-Dec	Unearned Subscription Revenue		1,020,000	
	Subscription Revenue			1,020,000
	<i>To record subscriptions delivered</i>			

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
16-Dec	Cash		3,000	
	Unearned Rental Revenue			3,000
	<i>Rented office space to tenant</i>			
31-Dec	Unearned Rental Revenue		1,500	
	Rental Revenue			1,500
	<i>To record rents earned for last half of December</i>			

Accrued expenses and accrued revenues

B-03.07

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
31-Dec	Interest Expense	66,667	
	Interest Payable		66,667
	<i>Accrued interest for 1 month (£10,000,000 X 8% X 1/12)</i>		
31-Dec	Accounts Receivable	45,000	
	Royalty Revenue		45,000
	<i>To record accrued revenue for December licensing agreement</i>		
31-Dec	Wages Expense	90,440	
	Wages Payable		90,440
	<i>To record accrued wages (5,320 X £17 per hour)</i>		
31-Dec	Utilities Expense	20,000	
	Utilities Payable		20,000
	<i>To record accrued utilities payable</i>		

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
31-Jan	Depreciation Expense	250	
	Accumulated Depreciation		250
	<i>To record depreciation expense (\$35,000/140 months)</i>		
31-Jan	Accounts Receivable	25,000	
	Revenues		25,000
	<i>To record accrued revenues</i>		
31-Jan	Utilities Expense	1,500	
	Utilities Payable		1,500
	<i>To record accrued utilities</i>		
31-Jan	Supplies Expense	3,613	
	Supplies		3,613
	<i>To record supplies used (\$7,113 - \$3,500 = \$3,613)</i>		
31-Jan	Insurance Expense	400	
	Prepaid Insurance		400
	<i>To record expired insurance (\$2,400/6 months = \$400)</i>		
31-Jan	Unearned Revenue	5,100	
	Revenues		5,100
	<i>To record revenues earned (\$8,500 X 60% = \$5,100)</i>		
31-Jan	Interest Expense	150	
	Interest Payable		150
	<i>To record accrued interest (\$15,000 X 1% = \$150)</i>		

T-account analysis and adjusting entries

B-03.09

Example 1:

Unearned Revenues				REVENUES			
12/31/X1	18,000	25,000	Beg. Bal.		178,976	Various	
		23,900	12/15/X1		18,000	12/31/X1	
	18,000	48,900			196,976		
		30,900					

12/31/X1	Unearned Revenues	18,000	
	Revenues		18,000
<i>To record previously collected revenues now earned</i>			

Example 2:

Prepaid Insurance				Insurance Expense			
Beg. Bal.	15,000	7,000	12/31/X1	12/31/X1	7,000		
12/10/X1	5,000						
	20,000	7,000					
	13,000						

12/31/X1	Insurance Expense	7,000	
	Prepaid Insurance		7,000
<i>To record expiration of prepaid insurance</i>			

Example 3:

Salaries Expense		Salaries Payable	
Various	21,500		
12/15/X1	2,500		
12/31/X1	3,000		
	<u>27,000</u>		
12/31/X1	Salaries Expense	3,000	
	Salaries Payable		3,000
	<i>To record accrued salaries</i>		

Example 4:

Depreciation Expense		Accumulated Depreciation	
Various	23,900	89,000	Beg. Bal.
12/31/X1	1,300	1,300	12/31/X1
	<u>25,200</u>	<u>90,300</u>	
12/31/X1	Depreciation Expense	1,300	
	Accumulated Depreciation		1,300
	<i>To record depreciation expense</i>		

Example 5:

Supplies		Supplies Expense	
Beg. Bal.	0	1,800	12/31/X1
12/9/X1	3,400		
	<u>3,400</u>		
	1,600		
12/31/X1	Supplies Expense	1,800	
	Supplies		1,800
	<i>To record supplies used</i>		

*Cash to accrual conversion***B-03.10**

Revenues	\$110,000. The increase in Accounts Receivable corresponds to services rendered but not yet collected. Therefore, accrual basis revenues exceed cash basis revenues by \$10,000.
Supplies	\$30,000. The decrease in supplies means that \$5,000 more was used than purchased. The accrual basis will measure supplies used as the amount of expense for the period.
Rent	\$12,000. The increase in Prepaid Rent signifies that payments exceeded consumption.
Equipment	\$5,000. The accrual basis would result in depreciating 25% of the asset cost (\$20,000/4 years).
Wages	\$157,000. Accrual basis Wage Expense would include the amount owed at the end of the year.

Involved Solutions

*I-03.01**Income measurement terms and concepts*

Accounting Income vs. Economic Income

Accounting (a) measurements tend to be based on historical cost determined by reference to an exchange transaction with another party (such as a purchase or sale) and (b) income represents “revenues” minus “expenses” as determined by reference to those “transactions or events.”

Economic income represents an increase in the command over goods and services.

Revenues vs. Gains

Revenues are inflows and enhancements from delivery of goods and services that constitute central ongoing operations.

Gains are inflows and enhancements arising from peripheral transactions and events.

Expenses vs. Losses

Expenses are outflows and obligations arising from the production of goods and services that constitute central ongoing operations.

Losses are outflows and obligations arising from peripheral transactions and events.

Fiscal Year vs. Calendar Year

A fiscal year is an annual reporting period running from any point of beginning to one year later.

A calendar year is an annual reporting period running from January 1 through December 31.

Revenue Recognition vs. Expense Recognition

Revenue recognition normally occurs at the time services are rendered or when goods are sold and delivered to a customer. The basic conditions of revenue recognition are to look for both (a) an exchange transaction, and (b) the earnings process being complete.

Expense recognition will typically follow one of three approaches: associating cause and effect, systematic and rational allocation, or immediate recognition.

Accruals vs. Prepaids

Accruals are expenses and revenues that gradually accumulate throughout an accounting period.

Prepaids are goods and services purchased in advance of their use.

Balance Sheet Approach vs. Income Statement Approach

The balance sheet approach results in the initial recording of prepaid assets and unearned revenues as assets and liabilities, with the subsequent adjustments to expense and revenue accounts.

The income statement approach results in the initial recording of prepaid assets as expenses and unearned revenues as revenues, with the subsequent adjustments to asset and liability accounts.

Cash Basis vs. Accrual Basis

The cash basis results in revenue being recorded when cash is received (no matter when it is "earned"), and expenses being recorded when paid (no matter when "incurred").

The accrual basis results in revenues and expenses being recognized as earned or incurred.

It is highly likely that revenue recognition rules will continue to evolve, and the FASB website will be constantly updated for developments. This will prove an excellent point to help the students understand the complexity of revenue recognition, as well as giving them tools to be more generally aware of how to track changes in accounting standards and developments via the FASB website.

The search of annual reports will turn up a diversity of issues, from simple to complex. Ask the students to consider how the FASB framework seems to be applied in practice.

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
Dec. 31	Unearned Revenue	250	
	Revenues		250
	<i>To record revenue for services provided (2/6 months X \$750)</i>		
Dec. 31	Supplies Expense	2,942	
	Supplies		2,942
	<i>To record supplies used (\$1,297 + \$1,175 + \$90 + \$940 - \$560)</i>		
Dec. 31	Depreciation Expense	303	
	Accumulated Depreciation		303
	<i>To record depreciation of computer ($\\$2,424/4 = \\606; $\\$606 \times 1/2$ year)</i>		
Dec. 31	Utilities Expense	374	
	Utilities Payable		374
	<i>To record accrued utilities cost</i>		
Dec. 31	Rent Expense	20,000	
	Rent Payable		20,000
	<i>To record accrued rent</i>		

GENERAL JOURNAL			Page
Date	Accounts	Debit	Credit
Mar. 31	Depreciation Expense	123,400	
	Accumulated Depreciation		123,400
	<i>To record depreciation expense</i>		
Mar. 31	Interest Expense	21,678	
	Interest Payable		21,678
	<i>To record accrued interest</i>		
Mar. 31	Accounts Receivable	54,800	
	Revenues		54,800
	<i>To record unbilled services</i>		
Mar. 31	Insurance Expense	5,000	
	Prepaid Insurance		5,000
	<i>To record insurance expense</i> <i>(\$6,000 X 6/12) + (\$3000 X 4/6)</i>		
Mar. 31	Supplies Expense	149,304	
	Supplies		149,304
	<i>To record supplies expense</i> <i>(\$37,904 + \$125,000 - \$13,600)</i>		
Mar. 31	Unearned Revenues	24,966	
	Revenues		24,966
	<i>To record services provided</i> <i>(\$219 X 456 X 25%)</i>		
Mar. 31	Advertising Expense	18,000	
	Prepaid Advertising		18,000
	<i>To record advertising expense</i> <i>(\$26,000 X 9/13)</i>		

Evaluation of adjustment errors and corrections

I-03.05

(a)

	Annual Net Income	Assets	Liabilities	Stockholders' Equity
As reported	\$5,576,670	\$18,942,308	\$1,967,638	\$16,974,670
Adjustments:				
Accrued expenses	(855,000)		855,000	(855,000)
Unearned revenues	(625,000)		625,000	(625,000)
Depreciation	(300,000)	(300,000)		(300,000)
Prepaid rent	(50,000)	(50,000)		(50,000)
Rebates	<u>(135,000)</u>	<u>-</u>	<u>135,000</u>	<u>(135,000)</u>
Correct amounts	<u>\$3,611,670</u>	<u>\$18,592,308</u>	<u>\$3,582,638</u>	<u>\$15,009,670</u>

Notes:

Accrued expenses: Fenco should have recorded expenses and a liability.

Unearned revenues: Fenco needs to reduce revenues and increase liabilities for the unearned portions.

Depreciation: Fenco needs to record depreciation for 6 months $((\$3,000,000/5) \times (6/12))$

Prepaid rent: Fenco needs to reduce prepaid rent and charge it to expense.

Rebates: Fenco needs to reduce income and set up a liability for the rebates.

(b)

It is difficult to say if the price drop is justified. It is not surprising however. Stocks are often valued based on earnings. Disappointments, especially if they are accompanied by news of a reporting fraud, usually produce very strong negative reactions from investors. Financial executives feel intense pressure to meet goals, as their jobs, performance-based pay, and other incentives are often tied to these numbers.

(c)

A person should resolve to do the right thing. Good people will usually follow the rules, but errors in judgment can occur because decisions are made in haste or under pressure. You should resolve to learn correct accounting and follow its principles. When confronted with a tough choice, do not panic and abandon core principles. The long-run outcomes are usually far worse when that happens!

Scenario 1: Balance Sheet Approach

06/01/X1	Prepaid Insurance	1,500	
	Cash		1,500
	<i>To record payment for 1-year policy</i>		

12/31/X1	Insurance Expense	875	
	Prepaid Insurance		875
	<i>To record insurance "used" (\$1,500 X 7/12)</i>		

Prepaid Insurance			
06/01/X1	1,500	875	12/31/X1
	625		

Insurance Expense			
12/31/X1	875		

Scenario 1: Income Statement Approach

06/01/X1	Insurance Expense	1,500	
	Cash		1,500
	<i>To record payment for 1-year policy</i>		

12/31/X1	Prepaid Insurance	625	
	Insurance Expense		625
	<i>To record insurance "unused" (\$1,500 X 5/12)</i>		

Prepaid Insurance			
12/31/X1	625		

Insurance Expense			
06/01/X1	1,500	625	12/31/X1
	875		

Scenario 2: Balance Sheet Approach

08/01/X1	Cash		20,000	
	Unearned Revenue			20,000
<i>To record receipt of payment for future service</i>				

12/31/X1	Unearned Revenue		8,000	
	Revenue			8,000
<i>To record revenue earned (\$20,000 X 40%)</i>				

Unearned Revenue			Revenue		
12/31/X1	8,000	20,000	08/01/X1		
				8,000	12/31/X1
		12,000			

Scenario 2: Income Statement Approach

08/01/X1	Cash		20,000	
	Revenue			20,000
<i>To record receipt of payment for future service</i>				

12/31/X1	Revenue		12,000	
	Unearned Revenue			12,000
<i>To record revenue not earned (\$20,000 X 60%)</i>				

Unearned Revenue			Revenue		
		12,000	12/31/X1		
			12/31/X1	12,000	20,000
					08/01/X1
				8,000	

Scenario 3: Balance Sheet Approach

12/01/X1	Prepaid Rent	3,000	
	Cash		3,000
	<i>To record payment for future booth space</i>		

12/31/X1 no entry

Prepaid Rent	
12/01/X1	3,000
	3,000

Rent Expense	
	0

Scenario 3: Income Statement Approach

12/01/X1	Rent Expense	3,000	
	Cash		3,000
	<i>To record payment for future booth space</i>		

12/31/X1	Prepaid Rent	3,000	
	Rent Expense		3,000
	<i>To record future booth space</i>		

Prepaid Rent	
12/31/X1	3,000

Rent Expense	
12/01/X1	3,000
	0

Scenario 4: Balance Sheet Approach

04/01/X1	Cash		1,000	
	Unearned Revenue			1,000
<i>To record receipt of payment for future service</i>				

06/20/X1	Unearned Revenue		1,000	
	Cash			1,000
<i>To record refund</i>				

Unearned Revenue			
06/20/X1	1,000	1,000	04/01/X1

		0	

Revenue			
		0	

Scenario 4: Income Statement Approach

04/01/X1	Cash		1,000	
	Revenue			1,000
<i>To record receipt of payment for future service</i>				

06/20/X1	Revenue		1,000	
	Cash			1,000
<i>To record refund</i>				

Unearned Revenue			
		0	

Revenue			
06/20/X1	1,000	1,000	04/01/X1

		0	

(a)

WWPS			
Cash Basis Income Statement			
For the Month Ending June 30, 20XX			
Revenues			
Services to customers			\$217,250
Expenses			
Wages	\$70,000		
Equipment	13,000		
Supplies	<u>76,000</u>		<u>159,000</u>
Cash basis income			<u>\$ 58,250</u>

Cash basis revenues:

92 weddings booked @ \$1,000 payment	\$ 92,000
75 weddings photographed @ \$1,200 payment	90,000
47 weddings final payment @ \$750 payment	<u>35,250</u>
	<u>\$217,250</u>

(b)

WWPS			
Income Statement			
For the Month Ending June 30, 20XX			
Revenues			
Services to customers			\$221,250
Expenses			
Wages	\$ 81,000		
Depreciation	14,000		
Supplies	<u>118,300</u>		<u>213,300</u>
Net income			<u>\$ 7,950</u>

Accrual basis revenues:

75 weddings photographed @ \$2,950	<u>\$221,250</u>
------------------------------------	------------------

Expenses:

Wages paid	\$ 70,000
Less: Beginning accrued wages	(12,000)
Plus: Ending accrued wages	<u>23,000</u>
Accrual basis wages	<u>\$ 81,000</u>
Depreciation (\$700,000/50 months)	<u>\$ 14,000</u>
Supplies purchased	\$ 76,000
Plus: Beginning supplies	123,500
Less: Ending supplies	<u>(81,200)</u>
Accrual basis supplies:	<u>\$118,300</u>

(c)

The proposed purchase price is \$596,250 ($\$7,950 \times 75$). This is a far cry from the price that would result based on the cash basis income ($\$4,368,750 = \$58,250 \times 75$). CPAs are well trained in financial decision making, and can offer valuable services to structure “smart” and “fair” business deals.

(d)

The cash basis is not in accordance with generally accepted accounting principles. A CPA is not allowed to issue an audit report stating that such statements conform to GAAP. However, such statements are frequently prepared for small businesses. Any report on those statements should clearly note that the statements are prepared under the cash basis, and no assertion should be made they are in accordance with generally accepted accounting principles.

(e)

The cash basis is simple. It involves little more than reporting receipts and disbursements. It sometimes has certain tax advantages, as it often produces earlier deductions and delayed revenues. This effectively defers tax obligations to a later time period.

(f)

Some businesses use a modified cash basis. They account for small recurring items on the cash basis, but apply accrual concepts to large expenditures like equipment purchases.

For WWPS, the modified cash basis would appear as in part (a), except that the equipment purchase would not be expensed. The depreciation from part (b) would instead be included as an expense.

The modified cash basis is frequently used for taxation, as it is generally unacceptable to expense purchases of property, plant, and equipment in the year of acquisition (in the USA). However, some small businesses are permitted to expense a modest amount of equipment purchases each year under a special provision of the tax code (known as Section 179).

Chapter 4 Solutions

Basic Solutions

Preparation of an adjusted trial balance

B-04.01

(a)

GENERAL JOURNAL			Page
Date	Accounts	Debit	Credit
Dec. 31	Depreciation Expense	5,000	
	Accumulated Depreciation		5,000
	<i>To record annual depreciation</i>		
Dec. 31	Accounts Receivable	17,900	
	Revenues		17,900
	<i>To record earned revenues</i>		
Dec. 31	Supplies Expense	3,390	
	Supplies		3,390
	<i>To record supplies used</i>		
Dec. 31	Rent Expense	1,000	
	Rent Payable		1,000
	<i>To record rent due and payable</i>		

(b)

CASH	
	18,400

ACCOUNTS RECEIVABLE	
aje #2	17,900

SUPPLIES	
	6,790
	3,390
	3,400
	aje #3

DISPLAY EQUIPMENT	
	15,000

ACCUMULATED DEPRECIATION	
	5,000
	aje #1

RENT PAYABLE	
	1,000
	aje #4

LOAN PAYABLE	
	7,500

CAPITAL STOCK	
	25,000

REVENUES	
	48,590
	17,900
	aje #2
	66,490

RENT EXPENSE	
	11,000
aje #4	1,000
	12,000

SALARIES EXPENSE	
	24,000

INTEREST EXPENSE	
	500

UTILITIES EXPENSE	
	5,400

DEPRECIATION EXPENSE	
aje #1	5,000

SUPPLIES EXPENSE	
aje #3	3,390

(c)

AMBER NESTOR ART GALLERY
Adjusted Trial Balance
As of December 31, 20X4

	Debits	Credits
Cash	\$ 18,400	\$ -
Accounts receivable	17,900	-
Supplies	3,400	-
Display equipment	15,000	-
Accumulated depreciation	-	5,000
Rent payable	-	1,000
Loan payable	-	7,500
Capital stock	-	25,000
Revenues	-	66,490
Rent expense	12,000	-
Salaries expense	24,000	-
Interest expense	500	-
Utilities expense	5,400	-
Depreciation expense	5,000	-
Supplies expense	3,390	-
	<u>\$104,990</u>	<u>\$104,990</u>

LAND MONITRIX CORPORATION
Income Statement
For the Year Ending December 31, 20X5

Revenues		
Services to customers		\$2,373,402
Expenses		
Selling	\$476,445	
Interest	80,000	
Salaries	677,667	
Maintenance and supplies	222,989	
Depreciation	<u>575,000</u>	<u>2,032,101</u>
Net income		<u>\$ 341,301</u>

LAND MONITRIX CORPORATION
Statement of Retained Earnings
For the Year Ending December 31, 20X5

Beginning retained earnings	\$228,892
Plus: Net income	<u>341,301</u>
	\$570,193
Less: Dividends	<u>50,000</u>
Ending retained earnings	<u>\$520,193</u>

LAND MONITRIX CORPORATION

Balance Sheet

December 31, 20X5

Assets

Cash		\$ 834,221
Accounts receivable		345,909
Prepaid expenses		45,787
Supplies		66,665
Satellite equipment	\$ 3,009,000	
Less: Accumulated depreciation	<u>(1,222,199)</u>	<u>1,786,801</u>
Total assets		<u>\$3,079,383</u>

Liabilities

Accounts payable	\$ 544,190	
Unearned revenues	455,000	
Loan payable	<u>1,000,000</u>	
Total liabilities		\$1,999,190

Stockholders' equity

Capital stock	\$ 560,000	
Retained earnings	<u>520,193</u>	
Total stockholders' equity		<u>1,080,193</u>
Total liabilities and equity		<u>\$3,079,383</u>

HIMARIOS COMPANY
Income Statement
For the Year Ending December 31, 20X9

Revenues		
Services to customers		\$141,487
Expenses		
Salaries	\$112,725	
Interest	2,100	
Depreciation	4,000	
Rent	<u>2,500</u>	<u>121,325</u>
Net income		<u>\$ 20,162</u>

HIMARIOS COMPANY
Statement of Retained Earnings
For the Year Ending December 31, 20X9

Beginning retained earnings	\$ 6,343
Plus: Net income	<u>20,162</u>
	\$26,505
Less: Dividends	<u>2,700</u>
Ending retained earnings	<u>\$23,805</u>

HIMARIOS COMPANY**Balance Sheet****December 31, 20X9****Assets**

Cash		\$ 59,300
Accounts receivable		12,371
Equipment	\$ 60,000	
Less: Accumulated depreciation	<u>(16,000)</u>	<u>44,000</u>
Total assets		<u>\$115,671</u>

Liabilities

Accounts payable	\$ 7,566	
Unearned revenues	2,500	
Salaries payable	4,300	
Rent payable	2,500	
Notes payable	<u>25,000</u>	
Total liabilities		\$ 41,866

Stockholders' equity

Capital stock	\$ 50,000	
Retained earnings	<u>23,805</u>	
Total stockholders' equity		<u>73,805</u>
Total liabilities and equity		<u>\$115,671</u>

Capital Stock	Real
Revenues	Temporary
Accumulated Depreciation	Real
Salaries Expense	Temporary
Accounts Payable	Real
Dividends	Temporary
Supplies	Real
Rent Expense	Temporary
Unearned Revenues	Real
Income Summary	Temporary
Equipment	Real
Prepaid Rent	Real
Interest Payable	Real
Retained Earnings	Real
Loan Payable	Real

The closing process

B-04.05

(a)

GENERAL JOURNAL			Page
Date	Accounts	Debit	Credit
Dec. 31	Revenues	478,400	
	Income Summary		478,400
	<i>To close revenues to Income Summary</i>		
Dec. 31	Income Summary	391,100	
	Rent Expense		120,000
	Salaries Expense		235,600
	Supplies Expense		18,000
	Interest Expense		7,400
	Depreciation Expense		10,100
	<i>To close expenses to Income Summary</i>		
Dec. 31	Income Summary	87,300	
	Retained Earnings		87,300
	<i>To close Income Summary to retained earnings</i>		
Dec. 31	Retained Earnings	20,000	
	Dividends		20,000
	<i>To close dividends</i>		

(b)

CASH	
	35,600

ACCOUNTS RECEIVABLE	
	23,700

SUPPLIES	
	7,500

EQUIPMENT	
	325,700

ACCUMULATED DEPRECIATION	
	40,400

ACCOUNTS PAYABLE	
	34,800

LOAN PAYABLE	
	100,000

CAPITAL STOCK	
	80,000

RETAINED EARNINGS		
closing	20,000	70,000
		87,300
	20,000	157,300
		137,300

DIVIDENDS		
	20,000	20,000
		closing
	0	

REVENUES		
closing	478,400	478,400
		0

RENT EXPENSE		
	120,000	120,000
		closing
	0	

SALARIES EXPENSE		
	235,600	235,600
		closing
	0	

SUPPLIES EXPENSE		
	18,000	18,000
		closing
	0	

INTEREST EXPENSE		
	7,400	7,400
		closing
	0	

DEPRECIATION EXPENSE		
	10,100	10,100
		closing
	0	

INCOME SUMMARY			
closing	391,100	478,400	closing
closing	87,300		
	0	0	

(c)

TIMBER CREEK
Post-Closing Trial Balance
As of December 31, 20X3

	Debits	Credits
Cash	\$ 35,600	\$ -
Accounts receivable	23,700	-
Supplies	7,500	-
Equipment	325,700	-
Accumulated depreciation	-	40,400
Accounts payable	-	34,800
Loan payable	-	100,000
Capital stock	-	80,000
Retained earnings	-	137,300
	<u>\$392,500</u>	<u>\$392,500</u>



Reversing entries

B-04.07

GENERAL JOURNAL				Page
Date	Accounts	Debit	Credit	
(a) Dec. 31	Salaries Expense	15,000		
	Salaries Payable		15,000	
	<i>To record accrued salaries</i>			
Dec. 31	Rent Receivable	100,000		
	Rent Revenues		100,000	
	<i>To record accrued rent revenue</i>			
(b)	<i>Total salaries are \$890,000 (\$875,000 + \$15,000)</i>			
	<i>Total rent revenue is \$4,900,000 (\$4,800,000 + \$100,000)</i>			
(c) Jan. 1	Salaries Payable	15,000		
	Salaries Expense		15,000	
	<i>To reverse accrued salaries</i>			
Jan. 1	Rent Revenues	100,000		
	Rent Receivable		100,000	
	<i>To reverse accrued rent revenue</i>			
(d) Jan. 10	Salaries Expense	40,000		
	Cash		40,000	
	<i>To record payment of salaries</i>			
Jan. 15	Cash	250,000		
	Rent Revenues		250,000	
	<i>To record collection of rent</i>			
(e) Jan. 10	Salaries Expense	25,000		
	Salaries Payable	15,000		
	Cash		40,000	
	<i>To record payment of salaries</i>			
Jan. 15	Cash	250,000		
	Rent Receivable		100,000	
	Rent Revenues		150,000	
	<i>To record collection of rent</i>			

- (f) *Salaries expense without reversing entries of \$25,000 (see entry (e)) equals the results from (c) and (d) with reversing entries (\$40,000 - \$15,000).*

Rent revenues without reversing entries of \$150,000 (see entry (e)) equals the results from (c) and (d) with reversing entries (\$250,000 - \$100,000).

Note Payable (due in 3 months)	Current Liabilities
Accumulated Depreciation	Property, Plant & Equipment
Investment in Government Bonds	Long-term Investments
Accounts Receivable	Current Assets
Accounts Payable	Current Liabilities
Long-term Receivable From Employee	Other Assets
Dividends	
Capital Stock	Stockholders' Equity
Patent	Intangibles
Supplies	Current Assets
Retained Earnings (ending)	Stockholders' Equity
Rent Expense	
Unearned Revenues	Current Liabilities
Income Summary	
Equipment	Property, Plant & Equipment
Revenues	
Prepaid Rent	Current Assets
Interest Payable	Current Liabilities
Retained Earnings (beginning)	
Loan Payable (due in 5 years)	Long-term Liabilities

Current and quick ratios

B-04.09

		<u>Current Assets</u>	<u>Quick Assets</u>	<u>Current Liabilities</u>
Accumulated Depreciation	R 4,569,000			
Prepaid Rent	45,800	R 45,800		
Note Payable (due in 3 months)	100,000			R 100,000
Accounts Receivable	468,000	468,000	R 468,000	
Accounts Payable	255,000			255,000
Patent	3,000,000			
Cash	790,000	790,000	790,000	
Supplies	134,800	134,800		
Unearned Revenues	133,000			133,000
Equipment	8,777,600			
Interest Payable	45,000			45,000
Loan Payable (due in 3 years)	1,500,000			
		<u>R 1,438,600</u>	<u>R 1,258,000</u>	<u>R 533,000</u>

Working Capital :

Current assets	R 1,438,600
Less: Current liabilities	<u>533,000</u>
	<u>R 905,600</u>

Current Ratio:

$$\text{Current assets} \div \text{Current liabilities} \quad R 1,438,600 \div R 533,000 = 2.70$$

Quick Ratio:

$$\text{Quick assets} \div \text{Current liabilities} \quad R 1,258,000 \div R 533,000 = 2.36$$

The ratios do not seem to indicate a liquidity problem. Current assets are almost 3X current liabilities, and a large portion of those assets are in highly liquid items such as cash and receivables.

Involved Solutions

I-04.01

Comprehensive problem from adjustments to financial statements

(a)

GENERAL JOURNAL			Page	
Date	Accounts	Debit		Credit
Dec. 31	Unearned Revenue	12,500		
	Revenues			12,500
	<i>To adjust Unearned Revenue for portion earned (\$31,250 X 40%)</i>			
Dec. 31	Supplies Expense	4,000		
	Supplies			4,000
	<i>To record supplies used (\$7,000 - \$3,000 = \$4,000)</i>			
Dec. 31	Utilities Expense	1,500		
	Utilities Payable			1,500
	<i>To record accrued utilities</i>			
Dec. 31	Wages Expense	3,900		
	Wages Payable			3,900
	<i>To record accrued wages</i>			
Dec. 31	Depreciation Expense	3,100		
	Accumulated Depreciation			3,100
	<i>To record depreciation expense</i>			

(b)

BERRY CORPORATION
Worksheet for Adjusted Trial Balance
December 31, 20X3

	Trial Balance		Adjustments		Adjusted Trial Balance	
	Debits	Credits	Debits	Credits	Debits	Credits
Cash	\$ 30,540				\$ 30,540	
Accounts receivable	45,000				45,000	
Supplies	7,000			\$ 4,000	3,000	
Equipment	244,500			-	244,500	
Accumulated depreciation	-	\$ 46,500		3,100	-	\$ 49,600
Accounts payable	-	12,700		-	-	12,700
Utilities payable	-	-		1,500	-	1,500
Wages payable	-	-		3,900	-	3,900
Unearned revenue	-	31,250	\$12,500	-	-	18,750
Notes payable	-	80,000	-	-	-	80,000
Capital stock	-	100,000	-	-	-	100,000
Retained earnings, Jan. 1	-	63,200	-	-	-	63,200
Dividends	12,000	-	-	-	12,000	-
Revenues	-	289,800	-	12,500	-	302,300
Wages expense	214,600	-	3,900	-	218,500	-
Utilities expense	8,700	-	1,500	-	10,200	-
Selling expense	41,610	-	-	-	41,610	-
Depreciation expense	12,000	-	3,100	-	15,100	-
Supplies expense	-	-	4,000	-	4,000	-
Interest expense	7,500	-	-	-	7,500	-
	<u>\$623,450</u>	<u>\$623,450</u>	<u>\$25,000</u>	<u>\$25,000</u>	<u>\$631,950</u>	<u>\$631,950</u>

(c)

BERRY CORPORATION
Income Statement
For the Year Ending December 31, 20X3

Revenues		
Services to customers		\$302,300
Expenses		
Wages	\$218,500	
Utilities	10,200	
Selling	41,610	
Depreciation	15,100	
Supplies	4,000	
Interest	<u>7,500</u>	<u>296,910</u>
Net income		<u>\$ 5,390</u>

BERRY CORPORATION
Statement of Retained Earnings
For the Year Ending December 31, 20X3

Beginning retained earnings	\$63,200
Plus: Net income	<u>5,390</u>
	\$68,590
Less: Dividends	<u>12,000</u>
Ending retained earnings	<u>\$56,590</u>

BERRY CORPORATION
Balance Sheet
December 31, 20X3

Assets**Current assets**

Cash	\$ 30,540	
Accounts receivable	45,000	
Supplies	<u>3,000</u>	\$ 78,540

Property, plant, & equipment

Equipment	\$244,500	
Less: Accumulated depreciation	<u>(49,600)</u>	<u>194,900</u>

Total assets		<u>\$273,440</u>
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Liabilities**Current liabilities**

Accounts payable	\$ 12,700	
Utilities payable	1,500	
Wages payable	3,900	
Unearned revenue	<u>18,750</u>	\$ 36,850

Long-term liabilities

Notes payable		<u>80,000</u>
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Total liabilities		\$116,850
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Stockholders' equity

Capital stock	\$100,000	
Retained earnings	<u>56,590</u>	

Total stockholders' equity		<u>156,590</u>
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Total liabilities and equity		<u>\$273,440</u>
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(d)

It is true that the adjustments produce no change in net income. The increase in revenues of \$12,500 is exactly offset by the increase in expenses (\$4,000 + \$1,500 + \$3,900 + \$3,100 = \$12,500). However, the individual accounts would not be correct if the adjustments were not made. It is important that all information be correct, and the adjustments should be recorded.

(a)

GENERAL JOURNAL				Page
Date	Accounts	Debit	Credit	
Dec. 31	Accounts Receivable	20,000		
	Revenues		20,000	
	<i>To record earned revenues and related receivable</i>			
Dec. 31	Supplies Expense	4,492		
	Supplies		4,492	
	<i>To record supplies used (\$8,992 - \$4,500 = \$4,492)</i>			
Dec. 31	Rent Expense	4,000		
	Prepaid Rent		4,000	
	<i>To record expired rent</i>			
Dec. 31	Depreciation Expense	7,000		
	Accumulated Depreciation		7,000	
	<i>To record depreciation expense</i>			
Dec. 31	Wages Expense	4,500		
	Wages Payable		4,500	
	<i>To record accrued wages</i>			
Dec. 31	Interest Expense	1,500		
	Interest Payable		1,500	
	<i>To record accrued interest</i>			
Dec. 31	Unearned Revenue	6,000		
	Revenues		6,000	
	<i>To record earned portion of customer prepayment (\$18,000 - \$12,000 = \$6,000)</i>			

(b)

CHESTERFIELD CORPORATION
Income Statement
For the Year Ending December 31, 20X9

Revenues		
Services to customers		\$360,490
Expenses		
Wages	\$280,623	
Rent	37,000	
Depreciation	7,000	
Supplies	4,492	
Interest	<u>5,000</u>	<u>334,115</u>
Net income		<u>\$ 26,375</u>

(c)

CHESTERFIELD CORPORATION
Statement of Retained Earnings
For the Year Ending December 31, 20X9

Beginning retained earnings	\$ 89,119
Plus: Net income	<u>26,375</u>
	\$115,494
Less: Dividends	<u>40,000</u>
Ending retained earnings	<u>\$ 75,494</u>

(d)

CHESTERFIELD CORPORATION
Balance Sheet
December 31, 20X9

Assets		
Current assets		
Cash	\$166,890	
Accounts receivable	107,654	
Supplies	4,500	
Prepaid rent	<u>2,000</u>	\$281,044
Property, plant, & equipment		
Equipment	\$145,700	
Less: Accumulated depreciation	<u>(44,660)</u>	<u>101,040</u>
Total assets		<u>\$382,084</u>
Liabilities		
Current liabilities		
Accounts payable	\$ 13,590	
Wages payable	4,500	
Interest payable	1,500	
Unearned revenue	<u>12,000</u>	\$ 31,590
Long-term liabilities		
Notes payable		<u>50,000</u>
Total liabilities		\$ 81,590
Stockholders' equity		
Capital stock	\$225,000	
Retained earnings	<u>75,494</u>	
Total stockholders' equity		<u>300,494</u>
Total liabilities and equity		<u>\$382,084</u>

(a)

WILD RIVER RAFTING CORPORATION
WORKSHEET TO PREPARE FINANCIAL STATEMENTS
AUGUST 31, 20X5

	Trial Balance		Adjustments		Adjusted Trial Balance		Income Statement		Statement of Ret. Earnings		Balance Sheet	
	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit
Cash	\$ 20,700				\$ 20,700						\$ 20,700	
Prepaid license	10,000			\$10,000								
Equipment	167,500				167,500						167,500	
Accum. depreciation		\$ 48,900		12,000		\$ 60,900						\$60,900
Accounts payable		3,100		6,600		9,700						9,700
Loan payable		65,000				65,000						65,000
Capital stock		55,000				55,000						55,000
Ret. earnings, Sep. 1		13,200				13,200				\$13,200		
Dividends	5,000				5,000				\$ 5,000			
Revenues		414,900				414,900		\$414,900				
Wages expense	303,000				303,000		\$303,000					
Advertising expense	42,200				42,200		42,200					
Bus expense	21,700		\$ 6,600		28,300		28,300					
Insurance expense	30,000				30,000		30,000					
Depreciation exp.			12,000		12,000		12,000					-
License expense			10,000		10,000		10,000					
Interest expense			2,000		2,000		2,000					
Interest payable	-	-	-	2,000	-	2,000	-	-				2,000
	<u>\$600,100</u>	<u>\$600,100</u>	<u>\$30,600</u>	<u>\$30,600</u>	<u>\$620,700</u>	<u>\$620,700</u>	<u>\$427,500</u>	<u>\$414,900</u>				
Net loss							-	12,600	12,600	-		
							<u>\$427,500</u>	<u>\$427,500</u>	<u>\$17,600</u>	<u>\$13,200</u>		
Ret. earnings, Aug. 31									-	4,400	4,400	-
									<u>\$17,600</u>	<u>\$17,600</u>	<u>\$192,600</u>	<u>\$192,600</u>

(b)

WILD RIVER RAFTING CORPORATION
Income Statement
For the Year Ending August 31, 20X5

Revenues		
Services to customers		\$414,900
Expenses		
Wages	\$303,000	
Advertising	42,200	
Bus	28,300	
Insurance	30,000	
Depreciation	12,000	
License	10,000	
Interest	<u>2,000</u>	<u>427,500</u>
Net loss		<u>\$ (12,600)</u>

WILD RIVER RAFTING CORPORATION
Statement of Retained Earnings
For the Year Ending August 31, 20X5

Beginning retained earnings	\$ 13,200
Net loss	<u>(12,600)</u>
	\$ 600
Less: Dividends	<u>5,000</u>
Ending accumulated deficit	<u>\$ (4,400)</u>

WILD RIVER RAFTING CORPORATION
Balance Sheet
August 31, 20X5

Assets		
Cash		\$ 20,700
Equipment	\$167,500	
Less: Accumulated depreciation	<u>(60,900)</u>	<u>106,600</u>
Total assets		<u>\$127,300</u>
Liabilities		
Accounts payable	\$ 9,700	
Interest payable	2,000	
Loan payable	<u>65,000</u>	
Total liabilities		\$ 76,700
Stockholders' equity		
Capital stock	\$ 55,000	
Accumulated deficit	<u>(4,400)</u>	
Total stockholders' equity		<u>50,600</u>
Total liabilities and equity		<u>\$127,300</u>

(c)

This company had a net loss, and the dividend further caused a negative balance in retained earnings. The creditors are apt to be quite concerned about both of these events.

I-04.04

Team-based identification of errors and corrections

ITEM #1				
Date	Accounts		Debit	Credit
30-Jun	Supplies Expense		10,000	
	Cash			10,000
	<i>Purchased computers with a three-year life and no salvage value</i>			
CORRECTION				
	Equipment		10,000	
	Depreciation Expense		1,667	
	Supplies Expense			10,000
	Accumulated Depreciation			1,667
	<i>To establish Equipment account, record depreciation for 6 months (\$10,000/3 X 6/12), and reverse Supplies Expense</i>			

ITEM #2				
Date	Accounts		Debit	Credit
15-Apr	Cash		10,000	
	Revenues			10,000
	<i>Collected customer deposits for future services</i>			
31-Dec	Revenues		2,500	
	Unearned Revenues			2,500
	<i>Completion of 25% of services provided under Apr. 15 agreement</i>			
CORRECTION				
	Revenues		5,000	
	Unearned Revenues			5,000
	<i>When all is said and done, \$2,500 has been earned and needs to be credited to Revenues (\$10,000 - \$2,500 - \$5,000). Conversely, \$7,500 should be in Unearned Revenues (\$2,500 + \$5,000)</i>			

ITEM #3			
Date	Accounts	Debit	Credit
30-Sep	Prepaid Insurance	3,000	
	Insurance Expense		3,000
	<i>Purchased for cash a 1-year insurance policy; coverage commences on Oct. 1</i>		
<u>CORRECTION</u>			
	Insurance Expense	3,750	
	Prepaid Insurance		750
	Cash		3,000
	<i>The original entry failed to credit cash. This must be corrected. Insurance expense should reflect a net debit of \$750 for 3 months ($\\$3,000 \times 3/12$). Prepaid Insurance should contain a \$2,250 debit balance ($\\$3,000 \times 9/12$).</i>		

ITEM #4			
Date	Accounts	Debit	Credit
4-Jan	Wages Expense	2,400	
	Cash		2,400
	<i>Paid wages, \$1,000 of which was properly accrued at the end of the prior year</i>		
<u>CORRECTION</u>			
	Wages Payable	1,000	
	Wages Expense		1,000
	<i>The original entry recorded \$1,000 of wages to expense that should have been applied as a reduction of a previously established payable.</i>		

ITEM #5			
Date	Accounts	Debit	Credit
1-Aug	Advertising Expense	9,000	
	Cash		9,000
<i>Purchased a 9-month advertising campaign from a local newspaper running from Sept. 1 to May 30</i>			
<u>CORRECTION</u>			
	Prepaid Advertising	5,000	
	Advertising Expense		5,000
<i>To reclassify unexpired advertising (5 months @ \$1,000 per month) from expense to an asset account.</i>			

ITEM #6			
Date	Accounts	Debit	Credit
31-Dec	Utilities Expense	2,500	
	Utilities Payable		250
<i>Recorded \$2,500 of estimated utilities cost for December</i>			
<u>CORRECTION</u>			
	Utilities Payable		2,250
<i>The original entry included the correct accounts but did not balance. This "entry" boosts the liability account to the correct level.</i>			

(a)

GENERAL JOURNAL				Page 1	
Date	Accounts		Debit		Credit
Jan. 1	Cash	✓	2,500,000		
	Capital Stock	✓			2,500,000
	<i>Investors provided \$2,500,000 of cash in exchange for stock of Fernandez Corporation</i>				
Jan. 1	Equipment	✓	4,000,000		
	Cash	✓			1,000,000
	Notes Payable	✓			3,000,000
	<i>Purchased combines and trucks in exchange for \$1,000,000 cash and a \$3,000,000 note payable</i>				
Feb. 7	Supplies	✓	40,000		
	Accounts Payable	✓			40,000
	<i>Purchased \$40,000 of supplies on account that will be needed during the upcoming harvest</i>				
Mar. 3	Wage Expense	✓	65,400		
	Cash	✓			65,400
	<i>Paid wages of \$65,400</i>				
Apr. 1	Accounts Receivable	✓	230,000		
	Revenues	✓			230,000
	<i>Billed customers for services in the amount of \$230,000</i>				

GENERAL JOURNAL				Page 2
Date	Accounts		Debit	Credit
Apr. 11	Accounts Payable	✓	30,000	
	Cash	✓		30,000
	<i>Paid \$30,000 toward the purchase of February 7</i>			
May 1	Prepaid Insurance	✓	24,000	
	Cash	✓		24,000
	<i>Purchased a \$24,000 insurance policy, recorded as prepaid insurance</i>			
June 6	Cash	✓	210,000	
	Accounts Receivable	✓		210,000
	<i>Collected \$210,000 on accounts receivable</i>			
June 9	Wage Expense	✓	130,600	
	Cash	✓		130,600
	<i>Paid wages of \$130,600</i>			
June 15	Fuel Expense	✓	30,200	
	Cash	✓		30,200
	<i>Paid \$30,200 for fuel costs</i>			

GENERAL JOURNAL				Page 3
Date	Accounts		Debit	Credit
June 20	Lodging Expense	✓	12,500	
	Cash	✓		12,500
	<i>Paid \$12,500 for lodging costs incurred by crew</i>			
June 30	Interest Expense	✓	120,000	
	Notes Payable	✓	80,000	
	Cash	✓		200,000
	<i>Paid \$120,000 of interest and \$80,000 to reduce the balance of the note payable</i>			
Aug. 1	Accounts Receivable	✓	812,000	
	Revenues	✓		812,000
	<i>Billed customers for services provided in the amount of \$812,000</i>			
Sept. 3	Cash	✓	715,000	
	Accounts Receivable	✓		715,000
	<i>Collected \$715,000 on accounts receivable</i>			
Sept. 16	Supplies	✓	25,000	
	Accounts Payable	✓		25,000
	<i>Purchased \$25,000 of supplies on account</i>			

GENERAL JOURNAL			Page 4	
Date	Accounts		Debit	Credit
Sept. 25	Fuel Expense	✓	61,200	
	Cash	✓		61,200
	<i>Paid \$61,200 for fuel costs</i>			
Oct. 20	Lodging Expense	✓	8,100	
	Cash	✓		8,100
	<i>Paid \$8,100 for lodging costs incurred by crew</i>			
Nov. 3	Wage Expense	✓	125,900	
	Cash	✓		125,900
	<i>Paid wages of \$125,900</i>			
Dec. 15	Cash	✓	100,000	
	Unearned Revenue	✓		100,000
	<i>Collected \$100,000 as deposits from customers who contracted for 20X8 harvesting services</i>			
Dec. 31	Dividends	✓	25,000	
	Cash	✓		25,000
	<i>Declared and paid a \$25,000 dividend to shareholders</i>			

(b)

Cash				
Date	Description	Debit	Credit	Balance
Jan. 1	Balance forward	-	-	-
Jan. 1	Journal Page 1	2,500,000	-	2,500,000
Jan. 1	Journal Page 1	-	1,000,000	1,500,000
Mar. 3	Journal Page 1	-	65,400	1,434,600
Apr. 11	Journal Page 2	-	30,000	1,404,600
May 1	Journal Page 2	-	24,000	1,380,600
June 6	Journal Page 2	210,000	-	1,590,600
June 9	Journal Page 2	-	130,600	1,460,000
June 15	Journal Page 2	-	30,200	1,429,800
June 20	Journal Page 3	-	12,500	1,417,300
June 30	Journal Page 3	-	200,000	1,217,300
Sept. 3	Journal Page 3	715,000	-	1,932,300
Sept. 25	Journal Page 4	-	61,200	1,871,100
Oct. 20	Journal Page 4	-	8,100	1,863,000
Nov. 3	Journal Page 4	-	125,900	1,737,100
Dec. 15	Journal Page 4	100,000	-	1,837,100
Dec. 20	Journal Page 4	-	25,000	1,812,100

Accounts Receivable				
Date	Description	Debit	Credit	Balance
Jan. 1	Balance forward	-	-	-
Apr. 1	Journal Page 1	230,000	-	230,000
June 6	Journal Page 2	-	210,000	20,000
Aug. 1	Journal Page 3	812,000	-	832,000
Sept. 3	Journal Page 3	-	715,000	117,000
Dec. 31	AJE - Journal Page 5	30,000	-	147,000

Supplies				
Date	Description	Debit	Credit	Balance
Jan. 1	Balance forward	-	-	-
Feb. 7	Journal Page 1	40,000	-	40,000
Sept. 16	Journal Page 3	25,000	-	65,000
Dec. 31	AJE - Journal Page 5	-	45,000	20,000

Prepaid Insurance				
Date	Description	Debit	Credit	Balance
Jan. 1	Balance forward	-	-	-
May 1	Journal Page 2	24,000	-	24,000
Dec. 31	AJE - Journal Page 5	-	16,000	8,000

Equipment				
Date	Description	Debit	Credit	Balance
Jan. 1	Balance forward	-	-	-
Jan. 1	Journal Page 1	4,000,000	-	4,000,000

Accumulated Depreciation				
Date	Description	Debit	Credit	Balance
Jan. 1	Balance forward	-	-	-
Dec. 31	AJE - Journal Page 5	-	160,000	160,000

Accounts Payable				
Date	Description	Debit	Credit	Balance
Jan. 1	Balance forward	-	-	-
Feb. 7	Journal Page 1	-	40,000	40,000
Apr. 11	Journal Page 2	30,000	-	10,000
Sept. 16	Journal Page 3	-	25,000	35,000

Interest Payable				
Date	Description	Debit	Credit	Balance
Jan. 1	Balance forward	-	-	-
Dec. 31	AJE - Journal Page 5	-	115,000	115,000

Unearned Revenue				
Date	Description	Debit	Credit	Balance
Jan. 1	Balance forward	-	-	-
Dec. 15	Journal Page 4	-	100,000	100,000

Notes Payable				
Date	Description	Debit	Credit	Balance
Jan. 1	Balance forward	-	-	-
Jan. 1	Journal Page 1	-	3,000,000	3,000,000
June 30	Journal Page 3	80,000	-	2,920,000

Capital Stock				
Date	Description	Debit	Credit	Balance
Jan. 1	Balance forward	-	-	-
Jan. 1	Journal Page 1	-	2,500,000	2,500,000

Retained Earnings				
Date	Description	Debit	Credit	Balance
Jan. 1	Balance forward	-	-	-
Dec. 31	Closing - Journal Page 6	-	182,100	182,100
Dec. 31	Closing - Journal Page 6	25,000	-	157,100

Dividends				
Date	Description	Debit	Credit	Balance
Dec. 31	Journal Page 4	25,000	-	25,000
Dec. 31	Closing - Journal Page 6	-	25,000	-

Revenues				
Date	Description	Debit	Credit	Balance
Apr. 1	Journal Page 1	-	230,000	230,000
Aug. 1	Journal Page 3	-	812,000	1,042,000
Dec. 31	AJE - Journal Page 5	-	30,000	1,072,000
Dec. 31	Closing - Journal Page 6	1,072,000	-	-

Wage Expense				
Date	Description	Debit	Credit	Balance
Mar. 3	Journal Page 1	65,400	-	65,400
June 9	Journal Page 2	130,600	-	196,000
Nov. 3	Journal Page 4	125,900	-	321,900
Dec. 31	Closing - Journal Page 6	-	321,900	-

Fuel Expense				
Date	Description	Debit	Credit	Balance
June 15	Journal Page 2	30,200	-	30,200
Sept. 25	Journal Page 4	61,200	-	91,400
Dec. 31	Closing - Journal Page 6	-	91,400	-

Lodging Expense				
Date	Description	Debit	Credit	Balance
June 20	Journal Page 3	12,500	-	12,500
Oct. 20	Journal Page 4	8,100	-	20,600
Dec. 31	Closing - Journal Page 6	-	20,600	-

Insurance Expense				
Date	Description	Debit	Credit	Balance
Dec. 31	AJE - Journal Page 5	16,000	-	16,000
Dec. 31	Closing - Journal Page 6	-	16,000	-

Supplies Expense				
Date	Description	Debit	Credit	Balance
Dec. 31	AJE - Journal Page 5	45,000	-	45,000
Dec. 31	Closing - Journal Page 6	-	45,000	-

Interest Expense				
Date	Description	Debit	Credit	Balance
June 30	Journal Page 3	120,000	-	120,000
Dec. 31	AJE - Journal Page 5	115,000	-	235,000
Dec. 31	Closing - Journal Page 6	-	235,000	-

Depreciation Expense				
Date	Description	Debit	Credit	Balance
Dec. 31	AJE - Journal Page 5	160,000	-	160,000
Dec. 31	Closing - Journal Page 6	-	160,000	-

Income Summary				
Date	Description	Debit	Credit	Balance
Dec. 31	Closing - Journal Page 6	889,900	-	889,900
Dec. 31	Closing - Journal Page 6	-	1,072,000	182,100
Dec. 31	Closing - Journal Page 6	182,100	-	-

(c)

FERNANDEZ CORPORATION
Trial Balance
December 31, 20X7

	Debits	Credits
Cash	\$1,812,100	\$ -
Accounts receivable	117,000	-
Supplies	65,000	-
Prepaid insurance	24,000	-
Equipment	4,000,000	-
Accounts payable	-	35,000
Unearned revenue	-	100,000
Notes payable	-	2,920,000
Capital stock	-	2,500,000
Dividends	25,000	-
Revenues	-	1,042,000
Wage expense	321,900	-
Fuel expense	91,400	-
Lodging expense	20,600	-
Interest expense	120,000	-
	<u>\$6,597,000</u>	<u>\$6,597,000</u>

(d)

GENERAL JOURNAL			Page 5	
Date	Accounts		Debit	Credit
Dec. 31	Depreciation Expense	✓	160,000	
	Accumulated Depreciation	✓		160,000
	<i>To record depreciation expense (\$4,000,000/25 = \$160,000)</i>			
Dec. 31	Supplies Expense	✓	45,000	
	Supplies	✓		45,000
	<i>To record supplies used (\$65,000 - \$20,000 = \$45,000)</i>			
Dec. 31	Interest Expense	✓	115,000	
	Interest Payable	✓		115,000
	<i>To record accrued interest</i>			
Dec. 31	Insurance Expense	✓	16,000	
	Prepaid Insurance	✓		16,000
	<i>To record expiration of prepaid insurance (\$24,000 X 8/12)</i>			
Dec. 31	Accounts Receivable	✓	30,000	
	Revenues	✓		30,000
	<i>To record services rendered but not billed</i>			

(e)

FERNANDEZ CORPORATION
Adjusted Trial Balance
December 31, 20X7

	Debits	Credits
Cash	\$1,812,100	\$ -
Accounts receivable	147,000	-
Supplies	20,000	-
Prepaid insurance	8,000	-
Equipment	4,000,000	-
Accumulated depreciation	-	160,000
Accounts payable	-	35,000
Interest payable	-	115,000
Unearned revenue	-	100,000
Notes payable	-	2,920,000
Capital stock	-	2,500,000
Dividends	25,000	-
Revenues	-	1,072,000
Wage expense	321,900	-
Fuel expense	91,400	-
Lodging expense	20,600	-
Insurance expense	16,000	-
Supplies expense	45,000	-
Interest expense	235,000	-
Depreciation expense	160,000	-
	<u>\$6,902,000</u>	<u>\$6,902,000</u>

(f)

FERNANDEZ CORPORATION
Income Statement
For the Year Ending December 31, 20X7

Revenues

Services to customers		\$1,072,000
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Expenses

Wages	\$321,900	
Fuel	91,400	
Lodging	20,600	
Insurance	16,000	
Supplies	45,000	
Interest	235,000	
Depreciation	<u>160,000</u>	<u>889,900</u>

Net income

		<u>\$ 182,100</u>
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FERNANDEZ CORPORATION
Statement of Retained Earnings
For the Year Ending December 31, 20X7

Beginning retained earnings	\$ -
Plus: Net income	<u>182,100</u>
	\$182,100
Less: Dividends	<u>25,000</u>
Ending retained earnings	<u>\$157,100</u>

FERNANDEZ CORPORATION
Balance Sheet
December 31, 20X7

Assets**Current assets**

Cash	\$1,812,100	
Accounts receivable	147,000	
Supplies	20,000	
Prepaid insurance	<u>8,000</u>	\$1,987,100

Property, plant, & equipment

Equipment	\$4,000,000	
Less: Accumulated depreciation	<u>(160,000)</u>	<u>3,840,000</u>
Total assets		<u>\$5,827,100</u>

Liabilities**Current liabilities**

Accounts payable	\$ 35,000	
Interest payable	115,000	
Unearned revenue	<u>100,000</u>	\$ 250,000

Long-term liabilities

Notes payable		<u>2,920,000</u>
Total liabilities		\$3,170,000

Stockholders' equity

Capital stock	\$2,500,000	
Retained earnings	<u>157,100</u>	
Total stockholders' equity		<u>2,657,100</u>
Total liabilities and equity		<u>\$5,827,100</u>

(g)

GENERAL JOURNAL			Page 6	
Date	Accounts		Debit	Credit
Dec. 31	Income Summary	✓	889,900	
	Wage Expense	✓		321,900
	Fuel Expense	✓		91,400
	Lodging Expense	✓		20,600
	Insurance Expense	✓		16,000
	Supplies Expense	✓		45,000
	Interest Expense	✓		235,000
	Depreciation Expense	✓		160,000
	<i>To close expense accounts to Income Summary</i>			
Dec. 31	Revenues	✓	1,072,000	
	Income Summary	✓		1,072,000
	<i>To close Revenues account to Income Summary</i>			
Dec. 31	Income Summary	✓	182,100	
	Retained Earnings	✓		182,100
	<i>To close Income Summary to Retained Earnings</i>			
Dec. 31	Retained Earnings	✓	25,000	
	Dividends	✓		25,000
	<i>To close Dividends account to Retained Earnings</i>			

(h)

FERNANDEZ CORPORATION
Post-Closing Trial Balance
December 31, 20X7

	Debits	Credits
Cash	\$1,812,100	\$ -
Accounts receivable	147,000	-
Supplies	20,000	-
Prepaid insurance	8,000	-
Equipment	4,000,000	-
Accumulated depreciation	-	160,000
Accounts payable	-	35,000
Interest payable	-	115,000
Unearned revenue	-	100,000
Notes payable	-	2,920,000
Capital stock	-	2,500,000
Retained earnings	-	157,100
	<u>\$5,987,100</u>	<u>\$5,987,100</u>

IMAMANI CORPORATION
Balance Sheet
December 31, 20X5

Assets**Current assets**

Cash		\$ 182,345	
Accounts receivable		56,766	
Inventories		121,008	
Prepaid insurance		<u>3,883</u>	\$ 364,002

Long-term investments

Cash value of life insurance		\$ 25,000	
Land held for speculation		<u>156,098</u>	181,098

Property, plant, & equipment

Land		\$ 278,790	
Building	\$1,990,776		
Less: Accumulated depreciation	<u>(988,777)</u>	1,001,999	
Equipment	\$ 887,885		
Less: Accumulated depreciation	<u>(477,654)</u>	<u>410,231</u>	1,691,020

Intangible assets

Patent			<u>275,000</u>
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Total assets			<u>\$2,511,120</u>
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Liabilities**Current liabilities**

Accounts payable		\$ 78,011	
Interest payable		31,117	
Current portion of loan payable		<u>200,000</u>	\$ 309,128

Long-term liabilities

Loan payable			<u>800,000</u>
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Total liabilities			\$1,109,128
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Stockholders' equity

Capital stock		\$ 755,000	
Retained earnings		<u>646,992</u>	

Total stockholders' equity			<u>1,401,992</u>
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Total liabilities and equity			<u>\$2,511,120</u>
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Each student will provide unique solutions based on the individual companies he or she selects.

	FIRST COMPANY	SECOND COMPANY	THIRD COMPANY
Name:			
Working Capital:			
Current Ratio:			
Quick Ratio:			
Commentary:			
Comparison to MD&A comments:			

Chapter 5 Solutions

Basic Solutions

Sales, returns and allowances

B-05.01

(a)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
	Cash	350	
	Sales		350
	<i>A customer purchased a lighting fixture for cash of €350</i>		
	Accounts Receivable	500	
	Sales		500
	<i>A customer purchased a lighting fixture on account for €500</i>		
	Sales Returns and Allowances	275	
	Cash		275
	<i>A customer returned a lighting fixture for a cash refund of €275</i>		
	Sales Returns and Allowances	600	
	Accounts Receivable		600
	<i>A customer returned a fixture for a credit on account of €600</i>		
	Sales Returns and Allowances	100	
	Cash		100
	<i>A complaining customer received a €100 allowance in cash</i>		
	Sales Returns and Allowances	70	
	Accounts Receivable		70
	<i>A complaining customer received a €70 credit on account</i>		
	Cash	475	
	Accounts Receivable		475
	<i>A customer paid their balance on account of €475</i>		

(b)

EURO LIGHTING
Income Statement
For the Year Ending December 31, 20X3

* Sales	€ 760,000
Less: Sales returns and allowances	<u>42,500</u>
Net sales	€ 717,500
Less: Cost of goods sold	<u>312,000</u>
Gross profit	€ 405,500
.....
.....
.....

* In many European countries, "Sales" is referred to as "Turnover."

Sales discounts

B-05.02

(a)

The student spreadsheet includes **intentional errors** in the "If statements" in column H. (=IF((G5-B5)>30,F5,F5*0.97) is the correct formulation, but the student's version uses (=IF((G5-B5)>60,F5,F5*0.98) . As such, 60 days and 2% terms are used incorrectly. The student is asked to examine and correct the "If statement."

	<u>Sale Date</u>	<u>Books</u>	<u>List Price</u>	<u>Trade Discount</u>	<u>Sale Amount</u>	<u>Date Paid</u>	<u>Collection</u>
A	11-Aug	3	\$ 425.00	.20	\$340.00	19-Aug	\$329.80
B	18-Aug	2	210.00	.10	189.00	4-Oct	189.00
C	3-Sep	1	90.00	0	90.00	3-Sep	87.30
D	5-Aug	7	1,205.00	.30	843.50	20-Sep	843.50

(b)

A	Accounts Receivable		340.00		
	Sales				340.00
	<i>To record sale to Student A</i>				
A	Cash		329.80		
	Sales Discount		10.20		
	Accounts Receivable				340.00
	<i>To record collection from Student A</i>				
B	Accounts Receivable		189.00		
	Sales				189.00
	<i>To record sale to Student B</i>				
B	Cash		189.00		
	Sales Discount		0.00		
	Accounts Receivable				189.00
	<i>To record collection from Student B</i>				

(a)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
5-May	Purchases	10,400	
	Accounts Payable		10,400
	<i>Purchased merchandise on account, terms 1/10,n/30</i>		
7-May	Accounts Payable	600	
	Purchase Returns & Allowances		600
	<i>Returned the Fall Color collection</i>		
10-May	Accounts Payable	9,800	
	Purchase Discounts		98
	Cash		9,702
	<i>Paid invoice, discount taken $((\\$10,400 - \\$600) \times 1\% = \\$98)$</i>		
20-May	Accounts Payable	9,800	
	Cash		9,800
	<i>Paid invoice, discount missed</i>		

(b)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
5-May	Purchases	10,296	
	Accounts Payable		10,296
	<i>Purchased merchandise on account, terms 1/10,n/30</i> <i>$(\\$10,400 - (\\$10,400 \times 1\%) = \\$10,296)$</i>		
7-May	Accounts Payable	594	
	Purchase Returns & Allowances		594
	<i>Returned the Fall Color collection $(\\$600 - (\\$600 \times 1\%))$</i>		
10-May	Accounts Payable	9,702	
	Cash		9,702
	<i>Paid invoice, discount taken $(\\$10,296 - \\$594 = \\$9,702)$</i>		
20-May	Accounts Payable	9,702	
	Purchase Discounts Lost	98	
	Cash		9,800
	<i>Paid invoice, discount missed</i>		

Sales and freight cost

B-05.04

(1)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
3-Jun	Accounts Receivable	1,200	
	Freight-out	125	
	Cash		125
	Sales		1,200
	<i>Sold merchandise on account for \$1,200, terms F.O.B. destination, and paid the freight bill of \$125</i>		
9-Jun	Cash	1,176	
	Sales Discounts	24	
	Accounts Receivable		1,200
	<i>Collected invoice amount less 2% discount</i>		

(2)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
7-Jun	Accounts Receivable	300	
	Sales		300
	<i>Sold merchandise on account for \$300, terms F.O.B. shipping point</i>		
20-Jun	Cash	300	
	Accounts Receivable		300
	<i>Collected invoice amount</i>		

(3)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
9-Jun	Accounts Receivable	605	
	Cash		45
	Sales		560
	<i>Sold merchandise on account for \$560, terms F.O.B. shipping point, freight prepaid</i>		
20-Jun	Cash	605	
	Accounts Receivable		605
	<i>Collected invoice amount plus prepaid freight</i>		

(4)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
10-Jun	Accounts Receivable	2,000	
	Freight-out	200	
	Cash		200
	Sales		2,000
	<i>Sold merchandise on account for \$2,000, terms F.O.B. destination, and paid the freight bill of \$200</i>		
17-Jun	Cash	1,960	
	Sales Discounts	40	
	Accounts Receivable		2,000
	<i>Collected invoice amount less 2% discount</i>		

(5)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
12-Jun	Accounts Receivable	1,800	
	Freight-out	230	
	Cash		230
	Sales		1,800
	<i>Sold merchandise on account for \$1,800, terms F.O.B. destination, and paid the freight bill of \$230</i>		
29-Jun	Cash	1,800	
	Accounts Receivable		1,800
	<i>Collected invoice amount</i>		

(6)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
15-Jun	Accounts Receivable	1,920	
	Freight-out	180	
	Cash		180
	Sales		1,920
	<i>Sold merchandise on account for \$1,920, terms F.O.B. destination, and paid the freight bill of \$180</i>		
27-Jun	Cash	1,920	
	Accounts Receivable		1,920
	<i>Collected invoice amount</i>		

Purchases and freight cost

B-05.05

(1)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
purchase	Purchases	1,000	
	Freight-in	100	
	Accounts Payable		1,100
	<i>F.O.B. Shipping point/freight prepaid</i>		
pay	Accounts Payable	1,100	
	Purchase Discounts		20
	Cash		1,080
	<i>discount taken</i>		

(2)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
purchase	Purchases	1,000	
	Freight-in	100	
	Accounts Payable		1,100
	<i>F.O.B. Shipping point/freight prepaid</i>		
pay	Accounts Payable	1,100	
	Cash		1,100
	<i>discount missed</i>		

(3)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
purchase	Purchases	1,000	
	Accounts Payable		1,000
	<i>F.O.B. Destination/freight prepaid</i>		
pay	Accounts Payable	1,000	
	Purchase Discounts		20
	Cash		980
	<i>discount taken</i>		

(4)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
purchase	Purchases		1,000	
	Accounts Payable			1,000
	<i>F.O.B. Destination/freight prepaid</i>			
pay	Accounts Payable		1,000	
	Cash			1,000
	<i>discount missed</i>			

(5)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
purchase	Purchases		1,000	
	Freight-in		100	
	Cash			100
	Accounts Payable			1,000
	<i>F.O.B. Shipping point/freight collect</i>			
pay	Accounts Payable		1,000	
	Purchase Discounts			20
	Cash			980
	<i>discount taken</i>			

(6)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
purchase	Purchases		1,000	
	Freight-in		100	
	Cash			100
	Accounts Payable			1,000
	<i>F.O.B. Shipping point/freight collect</i>			
pay	Accounts Payable		1,000	
	Cash			1,000
	<i>discount missed</i>			

Calculating values for a merchandising income statement

B-05.06

Sales		\$ 800,000
Less: Sales discounts	\$ 20,000	
Sales returns and allowances	<u>45,000</u>	<u>65,000</u>
Net sales		\$ 735,000
Purchases		\$ 400,000
Plus: Freight-in		<u>20,000</u>
		\$ 420,000
Less: Purchase discounts	\$ 4,000	
Purchase returns and allowances	<u>2,500</u>	<u>6,500</u>
Net purchases		\$ 413,500
Beginning inventory, Jan. 1		\$ 85,400
Net purchases		<u>413,500</u>
Goods available for sale		\$ 498,900
Less: Ending inventory, Dec. 31		<u>74,500</u>
Cost of goods sold		\$424,400
Net sales		\$ 735,000
Cost of goods sold		<u>424,400</u>
Gross profit		\$310,600
Rent		\$ 36,000
Salaries		145,700
Utilities		12,300
Freight-out		24,100
Other		<u>24,100</u>
Total expenses		\$ 242,200
Gross profit		\$ 310,600
Total expenses		<u>242,200</u>
Net income		\$ 68,400

PITKIN HEALTHCARE PRODUCTS
Income Statement
For the Year Ending December 31, 20X4

Revenues			
Sales			\$977,932
Less: Sales discounts		\$ 8,817	
Sales returns and allowances		<u>13,998</u>	<u>22,815</u>
Net sales			\$955,117
Cost of goods sold			
Beginning inventory, Jan. 1			\$244,956
Add: Purchases	\$433,443		
Freight-in		<u>43,441</u>	
		\$476,884	
Less: Purchase discounts	\$1,788		
Purchase returns & allowances		<u>6,665</u>	<u>8,453</u>
Net purchases			<u>468,431</u>
Goods available for sale			\$713,387
Less: Ending inventory, Dec. 31			<u>277,390</u>
Cost of goods sold			<u>435,997</u>
Gross profit			\$519,120
Expenses			
Salaries		\$233,998	
Marketing		111,991	
Rent		42,335	
Insurance		8,700	
Utilities		18,887	
Freight-out		3,566	
Depreciation		<u>65,990</u>	<u>485,467</u>
Net income			<u>\$ 33,653</u>

Closing entries

B-05.08

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
Dec. 31	Sales	887,654	
	Purchase Discounts	3,501	
	Purchase Returns and Allowances	19,009	
	Inventory	199,055	
	Income Summary		1,109,219
	<i>To close income statement accounts with a credit balance, and establish ending inventory balance</i>		
Dec. 31	Income Summary	1,032,455	
	Sales Discounts		4,667
	Sales Returns and Allowances		9,880
	Purchases		593,356
	Freight-in		21,090
	Salaries Expense		188,000
	Insurance Expense		9,152
	Utilities Expense		7,760
	Freight-out		2,434
	Depreciation Expense		13,773
	Inventory		182,343
	<i>To close income statement accounts with a debit balance, and remove the beginning inventory balance</i>		
Dec. 31	Income Summary	76,764	
	Retained Earnings		76,764
	<i>To close Income Summary to retained earnings</i>		

B-05.09

Perpetual inventory

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
purchase	Inventory	22	
	Accounts Payable		22
	<i>Purchased inventory on account</i>		
sale	Cash	39	
	Sales		39
	<i>To record cash sale of merchandise</i>		
	Cost of Goods Sold	22	
	Inventory		22
	<i>To record the cost of merchandise sold</i>		

MULTIPLE-STEP APPROACH

STOBER'S LAWN SPRINKLER COMPANY
Income Statement
For the Year Ending December 31, 20X7

Revenues			
Net sales			\$972,299
Cost of goods sold			
			<u>466,773</u>
Gross profit			
			\$505,526
Selling expenses			
Advertising	\$ 33,998		
Salaries	116,425		
Rent	86,400		
Utilities	<u>16,198</u>	\$253,021	
General & administrative expenses			
Salaries	\$ 49,896		
Rent	57,600		
Utilities	<u>10,799</u>	118,295	
Other expenses			
Interest		<u>18,500</u>	<u>389,816</u>
Income before taxes			
			\$115,710
Income tax expense			<u>30,000</u>
Net income			
			<u>\$ 85,710</u>

SINGLE-STEP APPROACH

STOBER'S LAWN SPRINKLER COMPANY
Income Statement
For the Year Ending December 31, 20X7

Revenues			
Net sales			\$972,299
Cost and expenses			
Cost of goods sold	\$466,773		
Selling expenses	253,021		
General & administrative expenses	118,295		
Interest expense	<u>18,500</u>		<u>856,589</u>
Income before taxes			
			\$115,710
Income tax expense			<u>30,000</u>
Net income			
			<u>\$ 85,710</u>

Morton Corporation

Sales returns rate:	(\$18,918 ÷ \$945,876)	2.00%
Gross profit margin	(\$217,551 ÷ \$926,958)	23.47%
Net profit margin	(\$39,413 ÷ \$926,958)	4.25%

Skyline Corporation

Sales returns rate:	(\$58,918 ÷ \$985,876)	5.98%
Gross profit margin	(\$509,827 ÷ \$926,958)	55.00%
Net profit margin	(\$39,413 ÷ \$926,958)	4.25%

Intuitively, the company with the highest gross profit rate (Skyline) would benefit more from an increase in sales (assuming SG&A is not changing). Conversely, Skyline will suffer more from a decline in sales. Below is a comparison of effects:

	<u>Morton</u>	<u>Skyline</u>
<u>10% increase in net sales</u>		
Net sales (\$926,958 X 110%)	\$1,019,654	\$1,019,654
Cost of goods sold	<u>780,348</u>	<u>458,844</u>
Gross profit (net sales X gross profit margin)	\$ 239,306	\$ 560,810
SG&A	<u>165,000</u>	<u>457,276</u>
Income before taxes	\$ 74,306	\$ 103,534
Income tax expense (25%)	<u>18,577</u>	<u>25,883</u>
Net income	<u>\$ 55,730</u>	<u>\$ 77,650</u>
<u>10% decrease in net sales</u>		
Net sales (\$926,958 X 90%)	\$ 834,262	\$ 834,262
Cost of goods sold	<u>638,466</u>	<u>375,418</u>
Gross profit (net sales X gross profit margin)	\$ 195,796	\$ 458,844
SG&A	<u>165,000</u>	<u>457,276</u>
Income before taxes	\$ 30,796	\$ 1,568
Income tax expense (25%)	<u>7,699</u>	<u>392</u>
Net income	<u>\$ 23,097</u>	<u>\$ 1,176</u>

The strengths are as follows:

Proceeds should be counted and recorded by two or more people immediately following the auction, and then taken directly to the bank for deposit in the night depository.

Prenumbered receipt books (with carbon copy film) should be used for donated items, and a log should be maintained of who received a receipt book. The receipts should be reconciled to donated items.

A paid receipt prepared by collection booth volunteers must be presented by a purchaser before being allowed to leave the gym with an item of merchandise.

An advertisement will be run in the local paper asking for support of the upcoming auction. The advertisement will include instructions to donors reminding them to always ask for a receipt for their gift, and encouraging them to call in to a special phone number to register to be eligible for a special prize drawing for donors!

Donated items must be taken to a local storage facility upon receipt. A warehouse custodian volunteer will log the items, and another volunteer will be authorized to lock and unlock the warehouse.

Use this problem as an opportunity to generally discuss the benefits of limited access to assets, separation of duties, authorization, use of prenumbered documents, and independent verification/audit. Have the class critique why the other suggestions might be ineffective or harmful to the control environment. Have the class offer other ideas (there are many -- e.g., logging the bid price and matching with payments, etc.) for improving controls at the auction.

Involved Problems

I-05.01

Comprehensive merchandising entries

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
3-Jun	Purchases		4,000	
	Accounts Payable			4,000
	<i>Purchased clocks on account, terms 1/10, n/30</i>			
5-Jun	Accounts Receivable		1,500	
	Sales			1,500
	<i>Sold clock on account, terms 2/10, n/eom</i>			
9-Jun	Accounts Payable		4,000	
	Purchase Discounts			40
	Cash			3,960
	<i>Paid for the purchase of June 3, taking the 1% discount</i>			
11-Jun	Purchases		8,000	
	Freight-in		460	
	Accounts Payable			8,460
	<i>Purchased clocks on account, 2/10, n/30, F.O.B. shipping point</i>			
19-Jun	Accounts Receivable		3,500	
	Freight-out		330	
	Sales			3,500
	Cash			330
	<i>Sold clock on account, 2/10, n/eom, F.O.B. destination</i>			
23-Jun	Sales Returns and Allowances		700	
	Accounts Receivable			700
	<i>Reduced balance due from customer on account of damage</i>			

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
27-Jun	Accounts Payable	8,460	
	Cash		8,460
	<i>Paid the full amount due for the purchase of June 11</i>		
27-Jun	Cash	1,500	
	Accounts Receivable		1,500
	<i>Collected the amount due for the sale on June 5</i>		
28-Jun	Cash	2,744	
	Sales Discounts	56	
	Accounts Receivable		2,800
	<i>Collected remaining amount for June 19 sale, less 2% discount</i>		

(a)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
	Purchases	80,000,000	
	Accounts Payable		80,000,000
	<i>Purchased cotton for 80,000,000 Pakistan Rupees (PKR), on account</i>		
	Accounts Payable	3,000,000	
	Purchase Returns & Allowances		3,000,000
	<i>Returned cotton for credit on account, PKR 3,000,000</i>		
	Accounts Payable	5,000,000	
	Purchase Returns & Allowances		5,000,000
	<i>Agreed with suppliers to purchase price allowances, PKR 5,000,000</i>		
	Accounts Payable	60,000,000	
	Purchase Discounts		600,000
	Cash		59,400,000
	<i>Made payment on PKR 60,000,000 of open accounts within discount period, and received PKR 600,000 purchase discounts</i>		
	Accounts Payable	12,000,000	
	Cash		12,000,000
	<i>Made payment on PKR 12,000,000 of open accounts outside of discount period, and lost PKR 120,000 purchase discounts</i>		

(b)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
	Purchases	79,200,000	
	Accounts Payable		79,200,000
	<i>Purchased cotton for 80,000,000 Pakistan Rupees (PKR), on account</i>		
	Accounts Payable	2,970,000	
	Purchase Returns & Allowances		2,970,000
	<i>Returned cotton for credit on account, PKR 3,000,000</i>		
	Accounts Payable	4,950,000	
	Purchase Returns & Allowances		4,950,000
	<i>Agreed with suppliers to purchase price allowances, PKR 5,000,000</i>		
	Accounts Payable	59,400,000	
	Cash		59,400,000
	<i>Made payment on PKR 60,000,000 of open accounts within discount period, and received PKR 600,000 purchase discounts</i>		
	Accounts Payable	11,880,000	
	Discounts Lost	120,000	
	Cash		12,000,000
	<i>Made payment on PKR 12,000,000 of open accounts outside of discount period, and lost PKR 120,000 purchase discounts</i>		

(c)

GTC Income Statement For the Month Ending June 30, 20XX (all amounts in thousands of PKR)
--

Revenues			
Net sales			97,000
Cost of goods sold			
Beginning inventory, Jan. 1		6,000	
Add: Purchases	80,000		
Freight-in	<u>2,200</u>		
		82,200	
Less: Purchase discounts	600		
Purchase returns & allowances	<u>8,000</u>	<u>8,600</u>	
Net purchases		<u>73,600</u>	
Goods available for sale		79,600	
Less: Ending inventory, Dec. 31		<u>5,000</u>	
Cost of goods sold			<u>74,600</u>
Gross profit			22,400
Expenses			
Rent		3,500	
Salaries		2,400	
Freight-out		<u>1,700</u>	<u>7,600</u>
Net income			<u>14,800</u>

(d)

CTC Income Statement For the Month Ending June 30, 20XX (all amounts in thousands of PKR)
--

Revenues		
Net sales		97,000
Cost of goods sold		
Beginning inventory, Jan. 1	6,000	
Add: Purchases	79,200	
Freight-in	<u>2,200</u>	
	81,400	
Less: Purchase returns & allowances	<u>7,920</u>	
Net purchases	<u>73,480</u>	
Goods available for sale	79,480	
Less: Ending inventory, Dec. 31	<u>5,000</u>	
Cost of goods sold		<u>74,480</u>
Gross profit		22,520
Expenses		
Rent	3,500	
Salaries	2,400	
Purchase discounts lost	120	
Freight-out	<u>1,700</u>	<u>7,720</u>
Net income		<u>14,800</u>

(a)

HANNA SPORTS CORPORATION			
Income Statement			
For the Year Ending December 31, 20X7			
Revenues			
Sales			\$3,665,667
Less: Sales discounts		\$ 23,112	
Sales returns and allowances		<u>144,367</u>	<u>167,479</u>
Net sales			\$3,498,188
Cost of goods sold			
Beginning inventory, Jan. 1		\$ 433,477	
Add: Purchases	\$2,198,560		
Freight-in		<u>73,091</u>	
		\$2,271,651	
Less: Purchase discounts	\$114,432		
Purchase returns & allowances	<u>26,341</u>	<u>140,773</u>	
Net purchases		<u>2,130,878</u>	
Goods available for sale		\$2,564,355	
Less: Ending inventory, Dec. 31		<u>525,525</u>	
Cost of goods sold			<u>2,038,830</u>
Gross profit			\$1,459,358
Expenses			
Selling		\$ 185,312	
Rent		262,000	
Interest		60,400	
Salaries		200,700	
Depreciation		<u>63,209</u>	<u>771,621</u>
Net income			<u>\$ 687,737</u>

(b)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
Dec. 31	Sales	3,665,667	
	Purchase Discounts	114,432	
	Purchase Returns and Allowances	26,341	
	Inventory	525,525	
	Income Summary		4,331,965
	<i>To close income statement accounts with a credit balance, and establish ending inventory balance</i>		
Dec. 31	Income Summary	3,644,228	
	Sales Discounts		23,112
	Sales Returns and Allowances		144,367
	Purchases		2,198,560
	Freight-in		73,091
	Selling Expense		185,312
	Rent Expense		262,000
	Interest Expense		60,400
	Salaries Expense		200,700
	Depreciation Expense		63,209
	Inventory		433,477
	<i>To close income statement accounts with a debit balance, and remove the beginning inventory balance</i>		
Dec. 31	Income Summary	687,737	
	Retained Earnings		687,737
	<i>To close Income Summary to Retained Earnings</i>		
Dec. 31	Retained Earnings	25,000	
	Dividends		25,000
	<i>To close Dividends to Retained Earnings</i>		

(a)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
T#1	Purchases	55,000	
	Accounts Payable		55,000
	<i>Periodic -- recording of purchase (assuming gross method)</i>		
	vs.		
	Purchases	53,900	
	Accounts Payable		53,900
	<i>Periodic -- recording of purchase (assuming net method)</i>		
	vs.		
	Inventory	55,000	
	Accounts Payable		55,000
	<i>Perpetual -- recording of purchase (assuming gross method)</i>		
	vs.		
	Inventory	53,900	
	Accounts Payable		53,900
	<i>Perpetual -- recording of purchase (assuming net method)</i>		

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
T#2	Accounts Payable	55,000	
	Purchase Discounts		1,100
	Cash		53,900
	<i>Periodic -- recording of payment (assuming gross method)</i>		
	vs.		
	Accounts Payable	53,900	
	Cash		53,900
	<i>Periodic -- recording of payment (assuming net method)</i>		
	vs.		
	Accounts Payable	55,000	
	Inventory		1,100
	Cash		53,900
	<i>Perpetual -- recording of payment (assuming gross method)</i>		
	vs.		
	Accounts Payable	53,900	
	Cash		53,900
	<i>Perpetual -- recording of payment (assuming net method)</i>		

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
T#3	Accounts Receivable	80,000	
	Sales		80,000
	<i>Periodic -- recording of sale (assuming gross method)</i>		
	vs.		
	Accounts Receivable	80,000	
	Sales		80,000
	<i>Periodic -- recording of sale (assuming net method)</i>		
	vs.		
	Accounts Receivable	80,000	
	Sales		80,000
	<u>and</u>		
	Cost of Goods Sold	39,300	
	Inventory		39,300
	<i>Perpetual -- recording of sale (assuming gross method)</i>		
	vs.		
	Accounts Receivable	80,000	
	Sales		80,000
	<u>and</u>		
	Cost of Goods Sold	39,300	
	Inventory		39,300
	<i>Perpetual -- recording of sale (assuming net method)</i>		

(b)

With the perpetual system, the general ledger tracks the cost of goods sold on an ongoing basis. The account contains \$39,300.

Further, the Inventory account contains \$35,600 (\$21,000 beginning balance + \$53,900 additions (under the gross approach, \$55,000 - \$1,100 = \$53,900) - \$39,300 transferred to cost of goods sold).

With the gross periodic system, the calculation of cost of goods sold would be as follows:

Beginning inventory	\$21,000
Plus: Net purchases (\$55,000 - \$1,100)	<u>53,900</u>
Cost of goods available for sale	\$74,900
Less: Ending inventory *	<u>35,600</u>
Cost of goods sold	<u>\$39,300</u>

With the net periodic system, the calculation of cost of goods sold would be as follows:

Beginning inventory	\$21,000
Plus: Purchases	<u>53,900</u>
Cost of goods available for sale	\$74,900
Less: Ending inventory *	<u>35,600</u>
Cost of goods sold	<u>\$39,300</u>

* Ending inventory would be determined by a physical count (this presentation assumes it would "match" amounts found in the perpetual system ledger).

MONTAQUE CORPORATION
Income Statement
For the Year Ending December 31, 20X5
(all amounts in thousands of dollars)

Revenues			
Sales			\$5,675,000
Less: Sales discounts	\$ 85,125		
Sales returns and allowances	<u>170,250</u>	255,375	
Net sales			\$5,419,625
Cost of goods sold			
Beginning inventory, Jan. 1		\$ 425,000	
Add: Purchases	\$3,203,159		
Freight-in	<u>55,000</u>		
		\$3,258,159	
Less: Purchase discounts	\$34,444		
Purchase returns & allowances	<u>61,225</u>	<u>95,669</u>	
Net purchases		<u>3,162,490</u>	
Goods available for sale		\$3,587,490	
Less: Ending inventory, Dec. 31		<u>552,500</u>	
Cost of goods sold			<u>3,034,990</u>
Gross profit			\$2,384,635
Selling expenses			
Advertising	\$ 250,710		
Salaries	594,000		
Depreciation	99,000		
Utilities	<u>297,000</u>	\$1,240,710	
General & administrative expenses			
Salaries	\$ 361,874		
Depreciation	217,124		
Utilities	<u>144,750</u>	723,748	
Other expenses			
Interest		<u>103,393</u>	<u>2,067,850</u>
Income before taxes			\$ 316,785
Income tax expense			<u>100,000</u>
Net income			<u>\$ 216,785</u>

This solution is reached by setting up the format, inserting the knowns, and solving for the unknowns. The excel version includes formulas that reveal the logic of each number.

MONTAQUE CORPORATION
Income Statement
For the Year Ending December 31, 20X5
(all amounts in thousands of dollars)

Revenues

Net sales		\$5,419,625
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Expenses

Cost of goods sold	\$3,034,990	
Selling	1,240,710	
General & administrative expenses	723,748	
Interest	<u>103,393</u>	<u>5,102,840</u>

Income before taxes		\$ 316,785
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Income tax expense		<u>100,000</u>
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Net income		<u>\$ 216,785</u>
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Each solution will be unique.

Chapter 6 Solutions

Basic Solutions

Composition of cash

B-06.01

(a) Currency in the petty cash box

Cash

(b) Postage stamps in a file cabinet

Neither cash nor cash equivalent

(a form of office supplies)

(c) The balance on deposit in a regular checking account

Cash

(d) An advance to an employee for travel costs to be incurred

Neither cash nor cash equivalent

(a form of receivable)

(e) A certificate of deposit maturing in 2 years

Neither cash nor cash equivalent

(a form of investment)

(f) A 30-day certificate of deposit

Cash equivalent

(g) An investment in a government treasury security maturing in 2 years

Neither cash nor cash equivalent

(a form of investment)

(h) A 90-day government treasury security

Cash equivalent

(i) A post-dated check accepted from a customer

Neither cash nor cash equivalent

(a form of receivable)

(j) Amounts due from customers

Neither cash nor cash equivalent

(a form of receivable)

(k) Amounts paid to suppliers by check, but the supplier has not yet cashed the check

Neither cash nor cash equivalent

(not an asset)

Borrowing money

May result in risk of financial failure

Attempting to accelerate customer collections

May necessitate offering of a discount

Delaying payments

May alienate key suppliers

Writing checks against future receipts not yet deposited

May be an illegal strategy

Slowing expansion plans

May give competitors an advantage

Establishing bank overdraft protection or a line of credit

May result in unnecessary financing costs

Issuing additional capital stock

May dilute ownership of existing shareholders

Planning full utilization of cash flows, with no reserves

May result in unexpected shortfall

Preparation of a basic bank reconciliation

B-06.03

Ending balance per bank statement		\$144,223.99
Add:		
Deposits in transit		7,989.04
Deduct:		
Outstanding checks		<u>(31,553.57)</u>
Correct cash balance		<u>\$120,659.46</u>

Ending balance per company records		\$ 72,644.12
Add:		
Customer note collection	\$45,000.00	
Interest earnings	<u>4,500.00</u>	49,500.00
Deduct:		
NSF check returned	\$ 1,440.66	
Service charges	<u>44.00</u>	<u>(1,484.66)</u>
Correct cash balance		<u>\$120,659.46</u>

B-06.04

Journal entries from bank reconciliation

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
	Cash	3,425.97	
	Accounts Receivable	466.90	
	Miscellaneous Expense	120.00	
	Revenues		3,445.99
	Interest Income		566.88
	<i>To record adjustments necessitated by bank reconciliation</i>		

Petty cash

B-06.05

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
#1	Petty Cash	500	
	Cash		500
	<i>To establish a \$500 petty cash fund</i>		
#2	Postage Expense	65	
	Office Supplies Expense	123	
	Fuel Expense	180	
	Cash Short	5	
	Cash		373
	<i>To record expenses and replenishment of petty cash</i>		
#3	Petty Cash	250	
	Postage Expense	265	
	Office Supplies Expense	160	
	Fuel Expense	40	
	Cash		715
	<i>To record expenses and replenishment/increase to petty cash</i>		

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
7-May	Short-Term Investments	3,500,000	
	Cash		3,500,000
	<i>To record the purchase of 500,000 shares of Kuai stock at \$7 per share</i>		
31-May	Short-Term Investments	1,000,000	
	Unrealized Gain on Investments		1,000,000
	<i>To record a \$2 per share increase in the value of 500,000 shares of Kuai stock</i>		
30-Jun	Unrealized Loss on Investments	2,000,000	
	Short-Term Investments		2,000,000
	<i>To record a \$4 per share decrease in the value of 500,000 shares of Kuai stock</i>		
15-Jul	Cash	50,000	
	Dividend Income		50,000
	<i>To record a \$0.10 per share cash dividend on the investment in Kuai stock</i>		
31-Jul	Short-Term Investments	1,500,000	
	Unrealized Gain on Investments		1,500,000
	<i>To record a \$3 per share increase in the value of 500,000 shares of Kuai stock</i>		

Involved Problems

Cash composition and management

I-06.01

The company has a 1-year certificate of deposit, and it is earning 5% interest. The bank has offered to swap this CD for a 1-month CD bearing a 4.5% interest rate.

Depending on the size of the CD, this option is relatively inexpensive (a reduction in yield of 0.5%) and can possibly result in a reclassification of the item from an investment category to a cash equivalent item. An open question would pertain to the yield that would be available at the time of renewal, as Nusbaum would be foregoing the one-year locked in rate.

The company holds significant investments in "trading" securities. These investments have typically yielded about 8% per year. The company can sell these securities and convert the proceeds to cash.

Assuming Nusbaum can reasonably expect to continue to earn 8% on trading securities, this option presents a fairly expensive choice for raising cash (as compared to the some of the other alternatives).

The company carries several million dollars of accounts payable, terms 2/10, n/30. The company always takes the discount, but can delay payment to preserve cash.

Although it may seem nominal, foregoing cash discounts is quite expensive (the mathematics is discussed in the preceding chapter). This choice involves an annual effective interest cost of around 36%.

The company can begin to offer cash discounts of 1/10, n/30 on its receivables, and anticipates that this would greatly speed cash collections.

This choice is similar to the preceding idea, and has an annual effective interest cost of around 18%. This would not be a good idea, unless it had the effect of reducing credit losses from non-payment.

The company maintains a significant investment in postage stamps and travel advances. The company can buy postage "as needed" via an internet linked postage meter, and the company can do away with travel advances and provide key employees with a company credit card to use for travel costs.

This choice is probably the best idea since it involves no cost. Pre-purchased postage has some convenience factor, but the money is not earning at all. The delayed outlay will conserve cash and not increase costs to the company. Travel advances, once common, have largely been replaced by use of credit cards. So long as Nusbaum pays the credit card balances in full each month, it can likely avoid any finance charges. This will reduce the receivables from employees and restore cash.

The company is considering establishing a line of credit that enables it to borrow, on demand, up to \$5,000,000 in cash. The bank will charge a \$12,500 annual fee for making this credit line available to the company. Any borrowed funds will accrue interest at the established London Interbank Offered Rate (LIBOR) plus 1%.

Many companies buy a line of credit such as this. Properly negotiated, unused lines of credit can be relatively inexpensive. Funds are drawn as needed and may be repaid just as quickly. They are the ideal tool because interest cost is incurred only on the borrowed funds, while borrowed. These tools provide considerable cushion against the ebb and flow of a company's cash position. Ultimately, a company can maintain less unproductive cash since a line of credit provides the cushion necessary to bridge a temporary cash shortage.

I-06.02

Bank reconciliation

(a)

Ending balance per bank statement		\$288,090.09	
Add:			
Deposits in transit		3,666.04	
Deduct:			
Certificate of deposit (not cash)	\$100,000.00		
Credit card payment not posted	4,446.09		
Outstanding checks			
#12170	245.55		
#12290	1,333.07		
#12291	<u>1,117.54</u>		
			<u>(107,142.25)</u>
Correct cash balance			<u>\$184,613.88</u>

Ending balance per company records		\$138,931.87	
(\$288,090.09 - \$149,158.22)			
Add:			
XTX draft	\$50,000.00		
Interest earnings	<u>475.00</u>		50,475.00
Deduct:			
Utility company draft	\$ 1,445.99		
Service charges	125.00		
Due from Sims	3,000.00		
Correction of error	<u>222.00</u>		
			<u>(4,792.99)</u>
Correct cash balance			<u>\$184,613.88</u>

(b) The correct Cash balance is \$184,613.88.

(c)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
	Cash	45,682.01	
	Utilities Expense	1,445.99	
	Miscellaneous Expense	125.00	
	Accounts Receivable	3,000.00	
	Revenues	222.00	
	Lease Income		50,000.00
	Interest Income		475.00
	<i>To record adjustments necessitated by bank reconciliation</i>		

I-06.03

Comprehensive bank reconciliation with business papers

Ending balance per bank statement		\$22,826.37	
Add:			
Deposits in transit		8,131.21	
Deduct:			
Outstanding checks			
#3444	\$ 175.00		
#3451	4,664.50		
#3461	<u>499.00</u>	<u>(5,338.50)</u>	
Correct cash balance		<u>\$25,619.08</u>	

Ending balance per company records		\$16,866.87	
Add:			
Note and interest collected	\$6,774.33		
Credit card postings	3,182.33		
Interest earnings	<u>65.66</u>	10,022.32	
Deduct:			
Service charges	\$ 35.00		
Water bill ETF	237.34		
NSF Check	988.77		
Correction of error check #3459	<u>9.00</u>	<u>(1,270.11)</u>	
Correct cash balance		<u>\$25,619.08</u>	

GENERAL JOURNAL

Date	Accounts	Debit	Credit
	Cash	8,752.21	
	Miscellaneous Expense	10.00	
	Utilities Expense	237.34	
	Accounts Receivable	1,013.77	
	Postage Expense	9.00	
	Sales		3,182.33
	Notes Receivable		6,500.00
	Interest Income		339.99
	<i>To record adjustments necessitated by bank reconciliation</i>		

This problem provides a tangible, team exercise pertaining to the correct operation of a petty cash fund. Begin by forming a nine-person team consisting of four employees, a banker, a petty cash custodian, a treasurer, an accountant, and an auditor.

Step 1

The treasurer will prepare a check to create a \$100 petty cash fund, and present this check to the banker who will cash the check. The accountant should record this transaction in the journal.

Step 2

The treasurer will present the cash to the petty cash custodian, and each employee will next present his or her receipts for reimbursement. You may assume presented receipts are legitimate and meet company guidelines.

Step 3

Employee #1, who has not been reimbursed by the fund for any expenses, will reconcile the petty cash account in the presence of the petty cash custodian. The employee will inform the treasurer of the amount needed for reimbursement. The treasurer will prepare a check for reimbursement and to increase the total petty cash fund to a balance of \$150. The treasurer will present the check to the bank and provide the funds to the petty cash custodian. The accountant should record this activity in the journal.

- EMPLOYEE # 1** Your objective is to be sure that receipts plus cash equal the \$100 fund amount. You should observe the petty cash custodian perform the count. It would be a bad practice for you to actually touch the money since you would then be a "suspect" in any shortage that might exist. Prepare a memo detailing the results of your review of petty cash. Be sure to include a listing of the expenses incurred by the fund and a statement confirming the remaining cash balance. Present this memo to the treasurer and the accountant.
- EMPLOYEE # 2** Clip this receipt and present it to the petty cash custodian for reimbursement. The customer agreed to reimburse Centennial for the overnight delivery cost, so make a prominent notation on the receipt for the accounting department to be sure and bill the customer.

<i>Overnight Parcel Express</i>	
<i>Shipment # 579709587</i>	
<i>Jan. 15, 20X5</i>	
Sender	Centennial Corp. 4648 Westover Rd.
Recipient	Broadway Industries 789 Fairway Lane #120
Contents	Overnight package - electronic parts
Delivery	Guaranteed by 10 a.m. - recipient signature req'd
Amount	\$45.00
Payment	Cash received from customer

- EMPLOYEE # 3 Present the following receipt to the petty cash custodian for reimbursement. This meal was with Arnold Zavier, a key customer. Your meeting with Arnold was to discuss a new product line. Tax rules require that you document the purpose of the meal and the involved persons. Make an appropriate notation directly on the receipt and attach your signature. (Note: As an aside, tax laws place limitations on the deductibility of such costs in determining a company's tax liability.)

Szechuan Restaurant

Fine food with fun!

Jan. 20, 20X5

Lunch special (2 @ \$8.75)	\$17.50
Iced tea	1.75
Hot tea	<u>1.50</u>
	\$20.75
Tax	<u>1.60</u>
Total	\$22.35
Tip	3.65
Total Ticket	\$26.00

*Thank you for dining with us!
May good fortune come your way today!*

- EMPLOYEE # 4 Present the following receipt to the petty cash custodian for reimbursement. This fuel was to "top off" the tank on a company vehicle prior to sending it out on a lengthy road trip.

RUN TIME PETROLEUM

8487 Northwest Highway

Jan. 25, 20X5

Unleaded regular gasoline	(3 gallons @ \$4)	\$ 12.00
	Total	\$ 12.00

BANKER

Use the following "currency" and pay the checks presented by the treasurer. Be sure the checks are made payable to "cash" and not "petty cash." The treasurer should sign the check on the front and endorse the check on the back.

\$20 \$20

\$20

TWENTY DOLLARS

\$20 \$20

\$20 \$20

\$20

TWENTY DOLLARS

\$20 \$20

\$20 \$20

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ONE DOLLAR

\$1 \$1

**PETTY CASH
CUSTODIAN**

Accept the cash provided by the treasurer and reimburse receipts presented by employees. Custodians should maintain a record of activities that includes signatures from employees who receive reimbursement or place funds into the account. Use the following form for this purpose. It is also a good practice to be sure that each receipt is clearly marked with the purpose of the expenditure and to whom reimbursement is made. Mark each receipt as "paid" at the time of reimbursement.

Date	Item	Amount	Signature
01-15-X5	Shipping	45.00	Employee #2
01-20-X5	Lunch	26.00	Employee #3
01-25-X5	Gas	12.00	Employee #4

TREASURER

Properly complete the checks and present them to the banker for cashing. Provide the funds to the custodian. It is a good practice to have the custodian sign a "receipt" acknowledging that he or she has accepted the funds.

Centennial Corp.
4648 Westover Rd.

Check # 1

Date: 01-01-X5

Pay to the order of: CASH

\$100.⁰⁰

***** ONE-HUNDRED AND NO/100 DOLLARS *****

◆ *Meridian Bank* ◆

MEMO To establish petty cash

Treasurer

Centennial Corp.
4648 Westover Rd.

Check # 2

Date: 01-31-X5

Pay to the order of: CASH

\$133.⁰⁰

***** ONE-HUNDRED THIRTY-THREE AND NO/100 DOLLARS *****

◆ *Meridian Bank* ◆

MEMO To increase petty cash

Treasurer

I acknowledge receipt of 100 dollars from Treasurer for the purpose of establishing or replenishing the petty cash fund over which I am custodian.

Date: 01-01-X5 Signed: Custodian

I acknowledge receipt of 133 dollars from Treasurer for the purpose of establishing or replenishing the petty cash fund over which I am custodian.

Date: 01-31-X5 Signed: Custodian

AUDITOR At the conclusion of this problem, review the procedures and documentation used by your team and identify if there were any errors or irregularities. Do you have any suggestions for improving controls?

Lead your team in a discussion of the importance of a good accounting system. For instance, how would Centennial insure that the shipping costs get billed back to Broadway, how would costs that have unique tax treatment (like the meal) be tracked and documented, and so forth. Focus the discussion on the importance of proper accounting systems and controls as a necessity in correctly managing business resources.

ACCOUNTANT Record the check to establish the petty cash fund.

Concurrent with the treasurer's reimbursement of the fund, obtain the receipts from the custodian along with a copy of the report prepared by Employee #1. Examine the documents for any discrepancies and prepare an appropriate journal entry.

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
	Petty Cash		100.00	
	Cash			100.00
	<i>To establish petty cash fund</i>			
	Petty Cash		50.00	
	Accounts Receivable		45.00	
	Selling Expense		26.00	
	Fuel Expense		12.00	
	Cash			133.00
	<i>To replenish and increase petty cash fund</i>			

Short-term investments

I-06.05

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
1-Aug	Short-Term Investments	300,000	
	Cash		300,000
	<i>To record the purchase of short-term investments (\$125,000 + \$75,000 + \$80,000 + \$20,000)</i>		
31-Aug	Short-Term Investments	9,000	
	Unrealized Gain on Investments		9,000
	<i>To record increase in the value of short-term investments (\$309,000 - \$300,000)</i>		
30-Sep	Short-Term Investments	28,000	
	Unrealized Gain on Investments		28,000
	<i>To record increase in the value of short-term investments (\$337,000 - \$309,000)</i>		
31-Oct	Unrealized Loss on Investments	20,000	
	Short-Term Investments		20,000
	<i>To record decrease in the value of short-term investments (\$337,000 - \$317,000)</i>		

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
Day 1	Short-Term Investments	300,000	
	Cash		300,000
	<i>To record the purchase of short-term investments</i>		
Day 1	Short-Term Investments	?	
	Unrealized Gain on Investments		?
	<i>To record the increase in value of short-term investments</i>		
	or		
Day 1	Unrealized Loss on Investments	?	
	Short-Term Investments		?
	<i>To record the decrease in value of short-term investments</i>		
	<i>A similar entry would be prepared each day -- each student will have a different result depending on the portfolio he or she constructs</i>		

Chapter 7 Solutions

Basic Solutions

Costs and benefits of selling on credit

B-07.01

This is an excellent problem to stimulate discussion - note that the advantages and disadvantages of "direct extension of credit" versus "accepting credit cards" are inverse (accept for stimulating additional sales).

	<u>Cash Only</u>		<u>Direct Extension of Credit</u>		<u>Accept Credit Cards</u>	
	Advantage	Disadvantage	Advantage	Disadvantage	Advantage	Disadvantage
Opportunity to charge/collect additional income in the form of interest		✓	✓			✓
Likely increase in revenues		✓	✓		✓	
Conducting credit background check/obtaining a credit report	✓			✓	✓	
Significant risk of uncollectible accounts	✓			✓	✓	
Increased accounting cost in the form of periodic billings	✓			✓	✓	
Incurrence of fees on each transaction	✓		✓			✓
Immediate access to proceeds	✓			✓	✓	

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
11-Jun	Cash	20,685	
	Service Charge	315	
	Sales		21,000
	<i>Sold merchandise on "bank card;" same day funding, net of fee of 1.5% assessed by bank</i>		
11-Jun	Accounts Receivable	2,880	
	Service Charge	120	
	Sales		3,000
	<i>Sold merchandise on "nonbank card," recorded 4% fee</i>		
25-Jun	Cash	2,880	
	Accounts Receivable		2,880
	<i>Collected amount due from credit card company</i>		

The direct write-off method

B-07.03

(a)
The direct write-off method is not in accordance with GAAP. It mismatches revenues and expenses because bad debts may not be measured until periods occurring substantially later than the recording of the sales. This has the effect of overstating income in the near-term periods. Nevertheless, it is a simpler method and might be used by a business that has no external reporting constituency that requires GAAP-based reports. If a business has an immaterial amount of uncollectibles, it too may simplify its accounting process by using the direct-write off approach.

(b)
The tax code only permits the direct write-off method. By using the direct write-off method for accounting and tax purposes, Flowers and Fluff is able to simplify the entire accounting process. A larger corporation does not have this luxury, and must maintain dual records for uncollectibles – one set of records to satisfy GAAP (an allowance method) and one set of records to satisfy tax rules (the direct write-off method).

(c)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
Dec. 31	Uncollectible Accounts Expense		125	
	Accounts Receivable			125
	<i>To record the write off of an uncollectible account from Colioni</i>			

(d)
The direct write-off method tends to overstate income and accounts receivable. It only reduces income when an account is definitely known to be bad. This means that some “unlikely” accounts exist that are still on the books. Of course, accounts receivable are also overstated by the continued reporting of the questionable assets.

B-07.04

Allowance method: Percentage of receivables

(a)

The beginning balance in the Allowance for Uncollectible Accounts was \$58,000. This is simply the existing ending balance (\$18,000) plus the amounts written off against the allowance (\$40,000) during the year.

(b)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
various	Allowance for Uncollectible Accounts	40,000	
	Accounts Receivable		40,000
	<i>To record the write off of uncollectible accounts</i>		

(c)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
Dec. 31	Uncollectible Accounts Expense	51,000	
	Allowance for Uncollectible Accounts		51,000
	<i>To adjust the allowance account from a \$18,000 balance to the target balance of \$69,000 (\$2,300,000 X 3%)</i>		

(d)

Accounts Receivable	\$2,300,000	
Less: Allowance for Uncollectible Accounts	<u>(69,000)</u>	\$2,231,000

(e)

The expense will equal the \$51,000 recorded in (c) above. The process of writing off specific accounts against an allowance (in (b) above) does not impact income.

Allowance method: Aging of accounts

B-07.05

(a)

Spreadsheet						
	A	B	fx		E	F
1	Age	Balance	Estimated % Uncollectible	Estimated Amount Uncollectible		
2	0 to 30 days	\$1,200,000	2%	\$ 24,000		
3	31 to 60 days	700,000	10%	70,000		
4	61 to 120 days	200,000	25%	50,000		
5	Over 120 days	25,000	50%	12,500		
6		<u>\$2,125,000</u>		<u>\$156,500</u>		
7						

Accounts receivable	\$2,125,000	
Less: Allowance for uncollectibles	<u>(156,500)</u>	\$1,968,500

(b)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
Dec. 31	Uncollectible Accounts Expense	141,500	
	Allowance for Uncollectible Accounts		141,500
	<i>To adjust the allowance account from a \$15,000 (cr) balance to the target balance of \$156,500 (cr)</i>		

(c)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
Dec. 31	Uncollectible Accounts Expense	161,500	
	Allowance for Uncollectible Accounts		161,500
	<i>To adjust the allowance account from a \$5,000 (dr) balance to the target balance of \$156,500 (cr)</i>		

The allowance account is a contra account to accounts receivable and would normally have a credit balance. A debit balance would be created if more accounts were actually written off against the account than was its balance. The situation would be rectified with an end-of-period adjustment, as shown. The debit balance might suggest that insufficient estimates of anticipated write-offs were previously established.

(a)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
Jan. 31	Accounts Receivable		630,000	
	Sales			630,000
	<i>To record January sales</i>			
Jan. 31	Uncollectible Accounts Expense		150,000	
	Allowance for Uncollectible Accounts			150,000
	<i>To establish the uncollectible accounts expense for January ($50 + \\$150,000 - \\$80,000 = \\$70,000$)</i>			
Jan. 31	Allowance for Uncollectible Accounts		80,000	
	Accounts Receivable			80,000
	<i>To write-off accounts deemed uncollectible</i>			
Jan. 31	Cash		150,000	
	Accounts Receivable			150,000
	<i>To record cash collections ($\\$630,000 - \\$80,000 - \\$400,000 = \\$150,000$)</i>			

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
Feb. 28	Accounts Receivable		480,000	
	Sales			480,000
	<i>To record February sales</i>			
Feb. 28	Uncollectible Accounts Expense		175,000	
	Allowance for Uncollectible Accounts			175,000
	<i>To establish the uncollectible accounts expense for February ($\\$70,000 + \\$175,000 - \\$95,000 = \\$150,000$)</i>			
Feb. 28	Allowance for Uncollectible Accounts		95,000	
	Accounts Receivable			95,000
	<i>To write-off accounts deemed uncollectible</i>			
Feb. 28	Cash		135,000	
	Accounts Receivable			135,000
	<i>To record cash collections ($\\$480,000 - \\$95,000 - (\\$650,000 - \\$400,000) = \\$135,000$)</i>			

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
Mar. 31	Accounts Receivable	590,000	
	Sales		590,000
	<i>To record March sales</i>		
Mar. 31	Uncollectible Accounts Expense	185,000	
	Allowance for Uncollectible Accounts		185,000
	<i>To establish the uncollectible accounts expense for March (\$150,000 + \$185,000 - \$125,000 = \$210,000)</i>		
Mar. 31	Allowance for Uncollectible Accounts	125,000	
	Accounts Receivable		125,000
	<i>To write-off accounts deemed uncollectible</i>		
Mar. 31	Cash	215,000	
	Accounts Receivable		215,000
	<i>To record cash collections (\$590,000 - \$125,000 - (\$900,000 - \$650,000) = \$215,000)</i>		

(b)

The cash discount appears to make sense since the 10% discount is lower than the current credit loss rate. However, the CFO may find that the only customers taking the discount are those which would have paid anyway. It could be that Morrison will continue to experience the same overall level of credit losses, and give up a 10% discount on the paying customers. If this were to occur, Morrison would experience reduced profitability. Credit policies are tricky, and the CFO needs to proceed with caution.

(c)

The CFO has an ethical and legal responsibility to truthful reporting. The CEO may be interested in boosting income by manipulating the provision for uncollectible accounts. This could garner a higher stock price but would ultimately cheat unsuspecting investors.

B-07.07

Allowance method: Write-off of accounts

(a), (c)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
	Allowance for Uncollectible Accounts	50,000	
	Accounts Receivable		50,000
	<i>To record the write-off of the Timber Creek receivable</i>		
	Accounts Receivable	50,000	
	Allowance for Uncollectible Accounts		50,000
	<i>To restore the Timber Creek receivable</i>		
	Cash	50,000	
	Accounts Receivable		50,000
	<i>To record the collection of the Timber Creek receivable</i>		

(b)

The actual write off of the account reduces both the asset account (Accounts Receivable) and its contra account (Allowance for Uncollectible Accounts). This action has no impact on the net realizable value of the receivables (accounts receivable minus the allowance), and no bearing on income. Income is impacted when the allowance is established, not at the time of write off.

(a)

$$\begin{aligned}
 & \text{Accounts Receivable Turnover Ratio} \\
 & = \\
 & \text{Net Credit Sales/Average Net Accounts Receivable} \\
 & = \\
 & \$6,000,000/[(\$2,150,000 + \$2,650,000)/2] \\
 & = \\
 & \$6,000,000/\$2,400,000 \\
 & = \\
 & \mathbf{2.5}
 \end{aligned}$$

$$\begin{aligned}
 & \text{Days Outstanding} \\
 & = \\
 & 365 \text{ Days/Accounts Receivable Turnover Ratio} \\
 & = \\
 & 365/2.5 \\
 & = \\
 & \mathbf{146 \text{ Days}}
 \end{aligned}$$

(b)

Supreme needs to carefully evaluate its extension of credit to customers. Since sales are stated as occurring uniformly over the year, one would expect that fully performing receivables would have an average age of around 75 to 80 days (100% of the most recent sales being uncollected, 75% of the prior month, 50% of the next prior month, and 25% of the month before that - yields 250% of monthly sales as the expected receivable level). Supreme's receivable position is quite stale and indicative of serious problems.

(c)

Sales, whether for cash or on account, are sales (unless there is a high likelihood of them not being collected). A year-end marketing push can clearly boost sales. The ratios for Supreme will appear even worse:

$$\begin{aligned}
 & \text{Accounts Receivable Turnover Ratio} \\
 & = \\
 & \text{Net Credit Sales/Average Net Accounts Receivable} \\
 & = \\
 & \$9,000,000/[(\$2,150,000 + \$5,650,000)/2] \\
 & = \\
 & \$9,000,000/\$3,900,000 \\
 & = \\
 & \mathbf{2.308}
 \end{aligned}$$

$$\begin{aligned}
 & \text{Days Outstanding} \\
 & = \\
 & 365 \text{ Days/Accounts Receivable Turnover Ratio} \\
 & = \\
 & 365/2.308 \\
 & = \\
 & \mathbf{158 \text{ Days}}
 \end{aligned}$$

The sensitivity of ratios to changing business circumstances should always be considered. The holiday sales campaign might be a major business success even though the ratios have deteriorated. The moral is to use ratios as an indicator but not a final evaluative tool. Consider the facts, always!

- | | |
|---------------|--|
| (1) Payee | (b) Party to whom payment will be made |
| (2) Principal | (a) Stated amount of the note |
| (3) Dishonor | (f) Refusing to pay a note at maturity |
| (4) Maker | (c) Party promising to make payment |
| (5) Interest | (d) Charge imposed on the borrower of funds for the use of money |
| (6) Maturity | (e) Date the note will be due |

Notes receivable interest calculations

B-07.10

Vinay missed all of the questions and is not eligible for the job. Corrections follow:

(a)

Assume the bank holds a 400,000 Indian Rupee (INR) note receivable dated June 1, 20X1. This note matures on August 31, 20X1. This note is written to assume a 360 day year and 30 day months. The annual interest rate is stated at 10%. What is the maturity value of the note, including interest?

$$\begin{aligned}\text{Answer: } & 400,000 \times 10\% \times 60/360 = \underline{6,666.67} \\ & 400,000 \times 10\% \times 90/360 = 10,000 \\ & 400,000 + \underline{6,666.67} = \underline{406,666.67} \\ & 400,000 + 10,000 = 410,000\end{aligned}$$

(b)

Assume the bank holds a INR 400,000 note receivable dated June 1, 20X1. This note matures on August 31, 20X1. This note is written to assume a 365 day year, and actual days outstanding are used in all calculations. The annual interest rate is stated at 10%. What is the maturity value of the note, including interest?

$$\begin{aligned}\text{Answer: } & 400,000 \times 10\% \times 92/365 = \underline{10,082.19} \\ & 400,000 + 10,082.19 = \underline{410,082.19}\end{aligned}$$

(c)

Assume the bank holds a INR 1,000,000 note receivable dated October 1, 20X5. This note matures on September 30, 20X6. This note is written to assume a 360 day year and 30 day months. The annual interest rate is stated at 8%. How much interest income should the bank record for its accounting year ending December 31, 20X5?

$$\begin{aligned}\text{Answer: } & \text{Zero, the note is not due until 20X6} \\ & 1,000,000 \times 8\% \times 90/360 = \underline{20,000}\end{aligned}$$

(d)

Assume the bank holds a INR 1,000,000 note receivable dated October 1, 20X5. This note matures on September 30, 20X6. This note is written to assume a 360 day year and 30 day months. The annual interest rate is stated at 8%. How much interest income should the bank record for its accounting year ending December 31, 20X6?

$$\begin{aligned}\text{Answer: } & 1,000,000 \times 8\% \times 270/360 = \underline{600,000} \\ & 1,000,000 \times 8\% \times 270/360 = \underline{60,000}\end{aligned}$$

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
Dec. 1	Notes Receivable	24,000	
	Accounts Receivable		24,000
	<i>To record issuance of 10%, 1-year note, in exchange for outstanding receivable</i>		
Dec. 31	Interest Receivable	200	
	Interest Income		200
	<i>To accrued interest on note (\$24,000 X 10% X 1/12)</i>		
Nov. 30	Cash	26,400	
	Interest Income		2,200
	Interest Receivable		200
	Notes Receivable		24,000
	<i>To record interest income (11 months) and collection of note receivable and previously accrued interest</i>		

If Lambert did not make payment on November 30, but Musaka still anticipated collecting the amount due, then the debit would be to Accounts Receivable rather than Cash.

Involved Solutions

Direct write-off versus allowance methods

I-07.01

(a)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
Year 1	No Entry		
Year 2	Uncollectible Accounts Expense	24,000	
	Accounts Receivable		24,000
	<i>To write-off uncollectible accounts</i>		
Year 3	Uncollectible Accounts Expense	111,000	
	Accounts Receivable		111,000
	<i>To write-off uncollectible accounts</i>		

(b)

The direct write-off method "mismatches" revenues and expenses. The cost of a write-off is not expensed until the years following the year of sale. The allowance method does a better job of matching revenues and expenses and produces a more representationally faithful portrayal of income. A proper application of the allowance technique also produces a more valid carrying value for the receivables on the balance sheet each period.

(c)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
Year 1	Uncollectible Accounts Expense	75,000	
	Allowance for Uncollectible Accounts		75,000
	<i>To establish the allowance account for Year 1</i>		
Year 2	Uncollectible Accounts Expense	199,000	
	Allowance for Uncollectible Accounts		199,000
	<i>To establish the allowance account for Year 2 (\$250,000 - (\$75,000 - \$24,000))</i>		
Year 2	Allowance for Uncollectible Accounts	24,000	
	Accounts Receivable		24,000
	<i>To write-off uncollectible accounts</i>		
Year 3	Uncollectible Accounts Expense	361,000	
	Allowance for Uncollectible Accounts		361,000
	<i>To establish the allowance account for Year 3 (\$500,000 - (\$250,000 - \$111,000))</i>		
Year 3	Allowance for Uncollectible Accounts	111,000	
	Accounts Receivable		111,000
	<i>To write-off uncollectible accounts</i>		

(d)

Net income for Year 1 is \$25,000 (\$100,000 as reported - \$75,000).

Net income for Year 2 is \$125,000 (\$300,000 as reported - (\$199,000 - \$24,000)).

Net income for Year 3 is \$300,000 (\$550,000 as reported - (\$361,000 - \$111,000)).

The lower income will perhaps disappoint investors and lead to a lower stock price.

Allowances and account analysis

I-07.02

(a)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
	Accounts Receivable	6,000,000	
	Sales		6,000,000
	<i>To record sales on account</i>		
	Cash	4,800,000	
	Accounts Receivable		4,800,000
	<i>To record collections on account</i>		
	Sales Discounts	68,000	
	Accounts Receivable		68,000
	<i>To record sales discounts</i>		
	Allowance for Uncollectible Accounts	33,000	
	Accounts Receivable		33,000
	<i>To write-off uncollectible accounts</i>		
	Uncollectible Accounts Expense	59,320	
	Allowance for Uncollectible Accounts		59,320
	<i>To increase allowance by \$59,320</i>		

(b)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
	Accounts Receivable	6,600,000	
	Sales		6,600,000
	<i>To record sales on account</i>		
	Cash	5,900,000	
	Accounts Receivable		5,900,000
	<i>To record collections on account</i>		
	Sales Discounts	88,000	
	Accounts Receivable		88,000
	<i>To record sales discounts</i>		
	Allowance for Uncollectible Accounts	53,000	
	Accounts Receivable		53,000
	<i>To write-off uncollectible accounts</i>		
	Uncollectible Accounts Expense	81,420	
	Allowance for Uncollectible Accounts		81,420
	<i>To increase allowance to equal 3% of gross receivables (see calculations on next page)</i>		

	<u>Receivables</u>	<u>Allowance</u>
Beginning balance (20X7)	\$ 1,500,000	\$ 40,000
Sales on account (20X7)	6,000,000	
Collections on account (20X7)	(4,800,000)	
Sales discounts (20X7)	(68,000)	
Accounts written off (20X7)	(33,000)	(33,000)
Additions to allowance (20X7)	<u>-</u>	<u>59,320</u>
Ending balance (20X7)	<u>\$ 2,599,000</u>	<u>\$ 66,320</u>

	<u>Receivables</u>	<u>Allowance</u>
Beginning balance (20X8)	\$ 2,599,000	\$ 66,320
Sales on account (20X8)	6,600,000	
Collections on account (20X8)	(5,900,000)	
Sales discounts (20X8)	(88,000)	
Accounts written off (20X8)	<u>(53,000)</u>	<u>(53,000)</u>
Subtotals	\$ 3,158,000	\$ 13,320
Additions to allowance (20X8)	<u>-</u>	<u>81,420</u>
Ending balance (20X8)	<u>\$ 3,158,000</u>	<u>\$ 94,740</u>

The allowance account should have a balance of \$94,740 (3% of the gross receivables: (\$3,158,000 X 3% = \$94,740). The addition to the account (\$81,420) is equal to the difference between the \$13,320 balance before adjustment, and the targeted balance of \$94,740.

I-07.03

(a)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
	Allowance for Uncollectible Accounts	150,000	
	Accounts Receivable		150,000
	<i>To record the write-off of the Windy Point receivable</i>		
	Accounts Receivable	90,000	
	Allowance for Uncollectible Accounts		90,000
	<i>To restore the portion of the Windy Point receivable that was collected</i>		
	Cash	90,000	
	Accounts Receivable		90,000
	<i>To record the collection of the Windy Point receivable</i>		
	Accounts Receivable	25,689,000	
	Sales		25,689,000
	<i>To record sales on account</i>		
	Cash	21,300,500	
	Accounts Receivable		21,300,500
	<i>To record collections on account</i>		
	Allowance for Uncollectible Accounts	123,000	
	Accounts Receivable		123,000
	<i>To record the write-off of accounts</i>		
	Uncollectible Accounts Expense	337,500	
	Allowance for Uncollectible Accounts		337,500
	<i>To establish the correct balance in the allowance</i> <i>(\$320,500 - \$150,000 + \$90,000 - \$123,000 = \$137,500; \$475,000 - \$137,500 = \$337,500)</i>		

(b)

	ACCOUNTS RECEIVABLE	ALLOWANCE FOR UNCOLLECTIBLES	NET REALIZABLE VALUE	UNCOLLECTIBLE ACCOUNTS EXPENSE
To record the write-off of the Windy Point receivable	\$ (150,000)	\$ (150,000)	\$ -	\$ -
To restore the portion of the Windy Point receivable that was collected	90,000	90,000	-	-
To record the collection of the Windy Point receivable	(90,000)	-	(90,000)	-
To record sales on account	25,689,000	-	25,689,000	-
To record collections on account	(21,300,500)	-	(21,300,500)	-
To record the write-off of accounts	(123,000)	(123,000)	-	-
To establish the correct balance in the allowance for uncollectibles	-	337,500	(337,500)	337,500

(a)

Customer	Date of Sale	(age)	Amount	
Clinic Quick	August 15, 2018	503	16,040	
Target Time	February 3, 2019	331	14,440	
Novellus	February 16, 2019	318	18,780	
Meridan Oil	May 20, 2019	225	11,786	61,046
Batesville	August 18, 2019	135	14,805	
Delorres River Guides	September 19, 2019	103	8,990	23,795
Xhi	October 20, 2019	72	15,100	
Sanchez Systems	October 25, 2019	67	22,310	
Aurora	November 12, 2019	49	5,000	
Inidigo	November 29, 2019	32	16,500	58,910
Zebra Sports	December 3, 2019	28	144,000	
Hospital Supply	December 4, 2019	27	135,100	
Uvlade Ranch	December 7, 2019	24	3,700	
CarMan	December 9, 2019	22	21,900	
Air There Freight	December 11, 2019	20	12,300	
Security by the Hour	December 13, 2019	18	40,900	
Robert Ricketts	December 14, 2019	17	3,550	
Elonzo's Restaurant	December 17, 2019	14	11,789	
Museum of Art	December 21, 2019	10	255,000	
Norman's	December 23, 2019	8	10,000	
Stop Shop	December 27, 2019	4	34,700	672,939
	December 31, 2019			

Spreadsheet						
	A	B	<i>fx</i> C	D	E	F
1	Age	Balance	Estimated % Uncollectible	Estimated Amount Uncollectible		
2	0 to 30 days	\$672,939	1%	\$ 6,729		
3	31 to 90 days	58,910	3%	1,767		
4	91 to 180 days	23,795	10%	2,380		
5	Over 180 days	61,046	40%	<u>24,418</u>		
6				<u>\$35,295</u>		
7						

(b)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
	Uncollectible Accounts Expense	20,295	
	Allowance for Uncollectible Accounts		20,295
	<i>To increase allowance (\$35,295 - \$15,000 = \$20,295)</i>		

(c)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
	Uncollectible Accounts Expense	50,295	
	Allowance for Uncollectible Accounts		50,295
	<i>To increase allowance (\$35,295 + \$15,000 = \$50,295)</i>		

(d)

If accounts actually written off exceed the provisions for uncollectible accounts, the balance will shift to a debit balance. This condition may indicate that the allowance rate is inadequate, or an unusually large account had to be written off. In any event, the adjusting entry restores the account to its proper estimated balance.

Each group is anticipated to have unique solutions based on the companies selected.

(a) - (d)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
(a)	Accounts Receivable		24,000,000	
	Cash		6,000,000	
	Sales			30,000,000
	<i>To record the sale to Min Chen</i>			
	Cost of Goods Sold		22,000,000	
	Inventory			22,000,000
	<i>To record the cost of the lighting system</i>			
(b)	Cash		4,000,000	
	Notes Receivable		20,000,000	
	Accounts Receivable			24,000,000
	<i>To record conversion of an account receivable to a note receivable</i>			
(c)	Interest Receivable		200,000	
	Interest Income			200,000
	<i>To record accrued interest (RMB 20,000,000 X 6% X 60/360 = 200,000)</i>			
(d)	Cash		20,600,000	
	Interest Income			400,000
	Interest Receivable			200,000
	Notes Receivable			20,000,000
	<i>To record the collection of the note plus interest (interest income RMB 20,000,000 X 6% X 120/360)</i>			

(e)

The conversion to the promissory note was likely done to formalize the trade agreement, improve Zhejiang's legal position in the event formal legal resolution of the matter became necessary, and provide Zhejiang interest income over the protracted payment period.

(f)

Zhejiang would incur a RMB 500,000 reduction in profitability. This cost should be "matched" with the revenue and would most appropriately be recorded in the year of sale, 20X2. This problem provides an opportunity to discuss measurement theories and estimation challenges that are problematic to most business environments.

Chapter 8 Solutions

Basic Solutions

Inventory categories, shipping, and costs to include in inventory

B-08.01

	Inventory		Category		
	Yes	No	Raw Material	Work in Process	Finished Goods
Finished stretch limos awaiting sale	✓				✓
Limos under production that have been ordered by specific customers and a deposit made	✓			✓	
Finished limos shipped to dealers, terms FOB shipping point		✓			
Luxury cars ordered from a manufacturer and in transit, FOB destination		✓			
Sheet metal in the company's warehouse	✓		✓		
Wiring produced in China, in transit on a ship in the Pacific Ocean, terms FOB Shanghai	✓		✓		
Leather installed on a limo currently under production	✓			✓	
LCD monitors installed in a finished limo awaiting shipment to a customer	✓				✓
Finished and sold limo returned to the factory for repair under warranty		✓			

(a)

The art gallery is the consignee and the artists are the consignors. The inventory should be carried on the balance sheets of the consignors, as they are the rightful owners. The gallery is merely the custodian, but does not own the inventory and would not report it as an asset. Consigned inventory presents special problems in tracking and controlling because physical custody is separated from the owner. The Consignees must be careful to maintain accountability as they will need to pay consignors for portions sold. Consignors should have procedures for regularly tracking and verifying the continued existence of inventory that is consigned to others.

(b)

The items for inclusion in inventory are selected from the list below:

See Shining Sea	Gallery	✓	\$ 2,500	\$ 2,500
Mermaids	Artist		1,800	
Big Fish	Gallery	✓	910	910
Shells At Dawn	Gallery	✓	3,000	3,000
Sand Forever	Gallery	✓	1,090	1,090
Development!	Artist		4,200	
Taking a Chance	Gallery	✓	20,000	20,000
Tides and Moons	Gallery	✓	500	500
Mystery Sea	Gallery	✓	1,200	1,200
On the Beach	Artist		1,650	
Too Much Sun	Artist		4,775	
Spring Break	Artist		5,000	
Inland	Gallery	✓	7,880	7,880
Alligators Return	Artist		19,720	
Frost and Farm	Gallery	✓	14,300	<u>14,300</u>
TOTAL OWNED INVENTORY AT RETAIL				\$51,380
DIVIDED BY MARKUP RATE				<u>÷ 200%</u>
TOTAL INVENTORY VALUE FOR THE BALANCE SHEET				<u>\$25,690</u>

(c)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
	Cash		1,000	
	Commission Revenue			250
	Accounts Payable			750
<i>To record sale of art held on consignment (25% revenue and 75% payable to artist)</i>				

Basic inventory cost flow concepts

B-08.03

(a)

2,780,000 pounds were used:

Beginning inventory	500,000
Plus: Purchases	<u>2,800,000</u>
Units available for sale	3,300,000
Less: Ending inventory	<u>520,000</u>
Units used	<u>2,780,000</u>

(b)

Goods available for sale is not the same as ending inventory. As shown in part (a), goods available for sale were 3,300,000 pounds. There is no expectation that all of the "goods available for sale" during a period were all on hand at the same time.

(c)

\$4,825,000:

Beginning inventory (500,000 X \$1.25)	\$ 625,000
Plus: Purchases (2,800,000 X \$1.50)	<u>4,200,000</u>
Cost of goods available for sale	<u>\$4,825,000</u>

(d)

Cost of goods available for sale is allocated between ending inventory and cost of goods sold.

(e)

FIFO -- \$780,000 to inventory and \$4,045,000 to cost of goods sold:

Beginning inventory (500,000 X \$1.25)	\$ 625,000
Plus: Purchases (2,800,000 X \$1.50)	<u>4,200,000</u>
Cost of goods available for sale	\$4,825,000
Less: Ending inventory (520,000 X \$1.50)	<u>780,000</u>
Cost of goods sold	<u>\$4,045,000</u>

(f)

LIFO -- \$655,000 to inventory and \$4,170,000 to cost of goods sold:

Beginning inventory (500,000 X \$1.25)	\$ 625,000
Plus: Purchases (2,800,000 X \$1.50)	<u>4,200,000</u>
Cost of goods available for sale	\$4,825,000
Less: Ending inventory (500,000 X \$1.25) + (20,000 X \$1.50)	<u>655,000</u>
Cost of goods sold	<u>\$4,170,000</u>

(g)

Profitability will differ by \$125,000 (cost of goods sold \$4,170,000 vs. \$4,045,000). This is an expected outcome based on different assumptions about cost allocation. It is perhaps confusing that profit measurement varies based on choice of accounting method. Yet, it is the reality of the accounting model that is in use. Efforts are constantly being made to improve GAAP, but there are many challenges to consider and discuss. This underscores the need for business persons to understand the fundamental nature of accounting in order to use and interpret financial data.

Basic "periodic" calculations for inventory, FIFO, LIFO, average cost

B-08.04

(a)	
FIFO	
Beginning inventory (40 X \$140)	\$ 5,600
Plus: Purchases (60 X \$150) + (90 X \$170)	<u>24,300</u>
Cost of goods available for sale	\$29,900
Less: Ending inventory (65 X \$170)	<u>11,050</u>
*Cost of goods sold	<u>\$18,850</u>
*Also, can be calculated as (40 X \$140) + (60 X \$150) + (25 X \$170)	
Sales (70 X \$255) + (55 X \$295)	\$34,075
Cost of goods sold	<u>18,850</u>
Gross profit	<u>\$15,225</u>
(b)	
LIFO	
Beginning inventory (40 X \$140)	\$ 5,600
Plus: Purchases (60 X \$150) + (90 X \$170)	<u>24,300</u>
Cost of goods available for sale	\$29,900
Less: Ending inventory (40 X \$140) + (25 X \$150)	<u>9,350</u>
**Cost of goods sold	<u>\$20,550</u>
**Also, can be calculated as (90 X \$170) + (35 X \$150)	
Sales (70 X \$255) + (55 X \$295)	\$34,075
Cost of goods sold	<u>20,550</u>
Gross profit	<u>\$13,525</u>
(c)	
Weighted-average	
Beginning inventory (40 X \$140)	\$ 5,600
Plus: Purchases (60 X \$150) + (90 X \$170)	<u>24,300</u>
Cost of goods available for sale	\$29,900
***Less: Ending inventory (65 X \$157.37)	<u>10,229</u>
***Cost of goods sold (125 X \$157.37)	<u>\$19,671</u>
***Weighted-average cost is \$157.3684 (((40 X \$140) + (60 X \$150) + (90 X \$170))/190)	
Sales (70 X \$255) + (55 X \$295)	\$34,075
Cost of goods sold	<u>19,671</u>
Gross profit	<u>\$14,404</u>

B-08.05

Basic "perpetual" calculations for inventory, FIFO, LIFO, average cost

FIFO perpetual:

Date	Purchases	Cost of Goods Sold	Balance
Day 0			10 X \$10 = \$100
Day 1	5 X \$11 = \$55		10 X \$10 = \$100 5 X \$11 = \$ 55 \$155
Day 2		6 X \$10 = \$60	4 X \$10 = \$ 40 5 X \$11 = \$ 55 \$ 95
Day 3	8 X \$12 = \$96		4 X \$10 = \$ 40 5 X \$11 = \$ 55 8 X \$12 = \$ 96 \$191
Day 4		4 X \$10 = \$ 40 5 X \$11 = \$ 55 \$ 95	8 X \$12 = \$ 96
Ending			8 X \$12 = \$ 96

LIFO perpetual:

Date	Purchases	Cost of Goods Sold	Balance
Day 0			10 X \$10 = \$100
Day 1	5 X \$11 = \$55		10 X \$10 = \$100 5 X \$11 = \$ 55 \$155
Day 2		5 X \$11 = \$ 55 1 X \$10 = \$ 10 \$ 65	9 X \$10 = \$ 90
Day 3	8 X \$12 = \$96		9 X \$10 = \$ 90 8 X \$12 = \$ 96 \$186
Day 4		8 X \$12 = \$ 96 1 X \$10 = \$ 10 \$106	8 X \$10 = \$ 80
Ending			8 X \$10 = \$ 80

Moving average:

Date	Purchases	Cost of Goods Sold	Balance
Day 0			10 X \$10 = \$100
Day 1	5 X \$11 = \$55		10 X \$10 = \$100 5 X \$11 = \$ 55
	Note: Average cost = \$155/15 units = \$10.3333		\$155
Day 2		6 X \$10.3333 = \$62	9 X \$10.3333 = \$ 93
Day 3	8 X \$12 = \$96		9 X \$10.3333 = \$ 93 8 X \$12 = \$ 96
	Note: Average cost = \$189/17 units = \$11.1176		\$189
Day 4		9 X \$11.1176 = \$100	8 X \$11.1176 = \$ 89
Ending			8 X \$11.1176 = \$ 89

The computer program returned the wrong value for the Moving Average method (\$88 instead of the correct \$89). Perhaps the program simply averaged the unit cost $((\$10 + \$11 + \$12)/3)$ at \$11. $\$11 \times 8$ units = the wrong amount (\$88). It is important to weight the average cost on a moving basis, as shown.

(a)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
	Purchases	100,000	
	Accounts Payable		100,000
	<i>Purchased inventory on account (100 units X \$1,000)</i>		
	Cash	150,000	
	Sales		150,000
	<i>Sold merchandise for cash (75 units X \$2,000)</i>		
	Sales Returns & Allowances	6,000	
	Cash		6,000
	<i>To record the return by customers of 3 units (3 X \$2,000)</i>		
	Accounts Payable	3,000	
	Purchase Returns and Allowance		3,000
	<i>To record the return to vendors of 3 units (3 X \$1,000)</i>		

(b)

Beginning inventory (\$0) + net purchases (\$100,000 - \$3,000) - ending inventory (25 units X \$1,000) = cost of goods sold (\$72,000); net sales (\$150,000 - \$6,000) - cost of goods sold (\$72,000) = gross profit (\$72,000).

(c)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
	Inventory	100,000	
	Accounts Payable		100,000
	<i>Purchased inventory on account (100 units X \$1,000)</i>		
	Cash	150,000	
	Sales		150,000
	<i>Sold merchandise for cash (75 units X \$2,000)</i>		
	Cost of Goods Sold	75,000	
	Inventory		75,000
	<i>To record cost of goods sold (75 units X \$1,000)</i>		
	Sales Returns & Allowances	6,000	
	Cash		6,000
	<i>To record the return by customers of 3 units (3 X \$2,000)</i>		
	Inventory	3,000	
	Cost of Goods Sold		3,000
	<i>To place returned units back in inventory (3 X \$1,000)</i>		
	Accounts Payable	3,000	
	Inventory		3,000
	<i>To record the return to vendors of 3 units (3 X \$1,000)</i>		

(d)

Net sales (\$150,000 - \$6,000) - cost of goods sold (\$75,000 - \$3,000) = gross profit (\$72,000). Ending inventory in the ledger would be \$25,000 (\$100,000 - \$75,000 + \$3,000 - \$3,000). This balance should be confirmed via a physical count.

B-08.07

Specific identification method

UNITS SOLD

Bentley	\$120,000
Cadillac	40,000
Land Rover	60,000
Porsche	75,000
Mercedes	85,000
Infiniti	<u>39,000</u>
	<u>\$419,000</u>

UNITS IN ENDING INVENTORY

Rolls Royce	\$160,000
Lexus	50,000
Jaguar	42,000
BMW	<u>64,000</u>
	<u>\$316,000</u>

Sales	\$600,000
Cost of goods sold	<u>419,000</u>
Gross profit	<u>\$181,000</u>

Lower of cost or net realizable value

B-08.08

(a)

	Fire	Horse	Baby	War	Rain	Election
COST	\$1,000	\$2,500	\$3,000	\$2,000	\$1,500	\$2,300
Vs. "NRV":						
Expected selling price	\$1,400	\$ 800	\$6,000	\$2,200	\$2,500	\$1,600
Selling expense	400	100	500	300	400	200
Net realizable value	\$1000	\$ 700	\$5,500	\$1,900	\$2,100	\$1,400
VALUE TO REPORT	\$1,000	\$ 700	\$3,000	\$1,900	\$1,500	\$1,400

(b)

Loss Due to Decline in Net Realizable Value of Inventory	900	
Inventory		900
<i>To record decline in value of Election Day Upset painting</i>		
<i>(\$2,300 - \$1,400)</i>		

(Note: Some companies will establish an allowance account rather than actually reducing the inventory account.)

Please note that the problem only asked for the journal entry for Election Day Upset. Similar journal entries would be needed to record the decline in value for Endless War (\$100) and Fire on Hill (\$1,800). In the alternative, a single journal entry recording \$2,800 could be recorded (\$900 + \$100 + \$1,800).

(c)

The item-by-item rule is not required, but it is the most conservative. Every item that has experienced any decrease is effectively reduced. A less conservative approach is to offset items that have declined against items that have increased, and only record any "net reduction" that is warranted.

(d)

Inventory recoveries are not recognized. The written down amount effectively establishes a new carryforward basis in the balance sheet.

Note: There is an exception for recoveries that occur during a subsequent interim period, but prior to the end of the year in which the write down was initially recognized.

Spreadsheet				
	A	B	C	D
1				
2	Sales*	100%	\$800,000	
3	Cost of goods sold	55%	<u>440,000</u>	
4	Gross profit	45%	<u>\$360,000</u>	
5				
6	* Sales = \$48,000/.06 = \$800,000			
7				
8	Beginning Inventory		\$189,000	
9	Plus: Purchases		<u>376,000</u>	
10	Cost of goods available for sale		\$565,000	
11	Less: Ending inventory before theft		<u>125,000</u>	
12	Cost of goods sold		<u>\$440,000</u>	
13				

Based on the gross profit technique, it appears that dresses on hand before the theft were \$125,000. Since \$123,000 was actually on hand, a preliminary estimate of the theft loss is only \$2,000.

The cost to retail percentage is 60% ($\$46,800/\$78,000$).

The following analysis shows that sales of \$361,333 were matched with cost of sales of \$216,800. This results in gross profit of \$144,533.

Spreadsheet					
	A	B	C	D	E
1		At Cost (60% of Retail)		At Retail	
2	Beginning Inventory	\$ 46,800		\$ 78,000	
3	Purchases*	<u>230,000</u>		<u>383,333</u>	
4	Cost of goods available for sale	\$276,800		\$461,333	
5	Sales	<u>216,800</u>		<u>361,333</u>	
6	Ending Inventory**	<u>\$ 60,000</u>		<u>\$100,000</u>	
7					

* Purchases at retail = $\$230,000/0.60$

** Ending inventory at cost = $\$100,000 \times 0.60$

(a)

Inventory requires a significant commitment of cash (and payables). Further, obsolete inventory seriously erodes profitability. It is a constant struggle to minimize the investment in inventory to enhance cash flows and profitability. At the same time, care must be taken to avoid out-of-stock conditions that can result in delays in delivering goods to customers.

(b)

$$\begin{aligned}
 & \text{20X2 Inventory Turnover Ratio} \\
 & = \\
 & \text{Cost of Goods Sold/Average Inventory} \\
 & = \\
 & \$168,000,000/[(\$23,000,000 + \$33,000,000)/2] \\
 & = \\
 & \$168,000,000/\$28,000,000 \\
 & = \\
 & \mathbf{6}
 \end{aligned}$$

$$\begin{aligned}
 & \text{20X3 Inventory Turnover Ratio} \\
 & = \\
 & \text{Cost of Goods Sold/Average Inventory} \\
 & = \\
 & \$440,000,000/[(\$33,000,000 + \$55,000,000)/2] \\
 & = \\
 & \$440,000,000/\$44,000,000 \\
 & = \\
 & \mathbf{10}
 \end{aligned}$$

The inventory turns have increased from 6 (roughly a 60 day supply) to 10 (roughly a 36 day supply). This is consistent with management goals. The strategy appears to be working. The increase in total inventory is due to business volume. Volume has increased significantly. Notice that cost of sales is up from \$168,000,000 to \$440,000,000. If the gross margin is steady, this means that sales activity has more than doubled.

Inventory errors

B-08.12

(a)

	20X7	20X8
Beginning inventory	\$ 634,400	\$ 730,400
Purchases	<u>1,899,990</u>	<u>2,450,500</u>
Cost of goods available for sale	\$2,534,390	\$3,180,900
Less: Ending inventory	<u>730,400</u>	<u>480,000</u>
Cost of goods sold	<u>\$1,803,990</u>	<u>\$2,700,900</u>
Sales	\$3,003,990	\$4,500,900
Cost of goods sold	<u>1,803,990</u>	<u>2,700,900</u>
Gross profit	<u>\$1,200,000</u>	<u>\$1,800,000</u>

(b)

	20X7	20X8
Beginning inventory	\$ 634,400	\$ 730,400
Purchases	<u>2,099,990</u>	<u>2,250,500</u>
Cost of goods available for sale	\$2,734,390	\$2,980,900
Less: Ending inventory	<u>730,400</u>	<u>480,000</u>
Cost of goods sold	<u>\$2,003,990</u>	<u>\$2,500,900</u>
Sales	\$3,003,990	\$4,500,900
Cost of goods sold	<u>2,003,990</u>	<u>2,500,900</u>
Gross profit	<u>\$1,000,000</u>	<u>\$2,000,000</u>

(c)

Even though the combined income for the two-year period is \$3,000,000 either way, it is still important that data for each year be representationally faithful. Many errors will "self-correct" over time, but this does not excuse getting each period's data accurate.

(d)

It is interesting that this error has no impact on income. Nevertheless, the error is a problem. Both inventory and accounts payable would be understated at the end of 20X7.

Involved Solutions

I-08.01

Inventory accounting concepts

CORRECTIONS ARE NOTED IN RED:

QUESTION Are "finished goods" synonymous with "cost of goods sold"?

ANSWER For a manufacturer, inventory may consist of ~~crude goods~~ raw materials, work in process, and finished goods categories. Finished goods are completed units awaiting sale. Cost of goods sold is the cost assigned to goods that have been sold and delivered to customers.

QUESTION How does the negotiation of freight terms impact total inventory?

ANSWER Goods that are purchased F.O.B. destination are not included in inventory until received. Goods that are sold F.O.B. destination are transferred out of inventory on the day shipped received by the buyer.

QUESTION Are consigned goods included in inventory?

ANSWER Consigned goods remain in the inventory of the ~~consignee~~ consignor, and should not be reported on the books of the ~~consignor~~ consignee.

QUESTION Is "inventory" also called "cost of goods available for sale"?

ANSWER Cost of goods available for sale is not the same as inventory. Cost of goods available for sale relates to a period of time and the amount is probably never actually on hand all at once. It is calculated as ending beginning inventory plus purchases.

QUESTION How does LIFO result in cash savings during a period of rising prices?

ANSWER LIFO generally results in a higher lower income level during a period of rising price. More Lower income equates to less taxes and more cash!

QUESTION Will a periodic and perpetual system give me the same results?

ANSWER **Never.** The perpetual recalculation of inventory balances gives a different result than is achieved under a periodic application of FIFO; LIFO, and average costing techniques. FIFO can produce the same results.

QUESTION It seems like the "gross profit" method is much simpler than FIFO, LIFO, or average costing. Can I use it as my primary inventory valuation technique?

ANSWER ~~Yes-~~ The gross profit method is an estimation technique and not an acceptable alternative to one of the other mentioned inventory costing methods.

QUESTION How can I use the retail inventory technique to estimate inventory theft?

ANSWER ~~You cannot-~~ Retail inventory techniques are used to assign costs to retail inventory on hand. ~~It is unreasonable to expect an accounting method to determine the cost of inventory that no longer exists-~~ They can also be used to estimate how much should be on hand (goods available at retail minus retail sales), and thereby estimate missing amounts.

QUESTION What's the big deal if I undercount ending inventory? The goods are still there so there is no real problem, right?

ANSWER ~~That's right-~~ Even if you miscount, ~~there is no economic effect-~~ After all, the goods are still on hand. ~~The numbers don't really matter in this case-~~ you will cause an error in ending inventory, cost of goods sold, and profits. Taxes and business decisions may be adversely impacted by such errors.

(a)

FIFO

Purchases		
50 units @ \$15,000 each		\$ 750,000
70 units @ \$16,000 each		1,120,000
30 units @ \$16,500 each		495,000
90 units @ \$17,000 each		1,530,000
25 units @ \$17,200 each		<u>430,000</u>
265 units available		<u>\$4,325,000</u>
210 units sold		
55 units in ending inventory		
Beginning inventory		\$ -
Plus: Purchases		<u>4,325,000</u>
Cost of goods available for sale		\$4,325,000
Less: Ending inventory (25 X \$17,200 + 30 X \$17,000)		<u>940,000</u>
Cost of goods sold		<u>\$3,385,000</u>
Sales		\$4,250,000
Cost of goods sold		<u>3,385,000</u>
Gross profit		<u>\$ 865,000</u>

(b)

LIFO

Beginning inventory		\$ -
Plus: Purchases		<u>4,325,000</u>
Cost of goods available for sale		\$4,325,000
Less: Ending inventory (50 X \$15,000) + (5 X \$16,000)		<u>830,000</u>
Cost of goods sold		<u>\$3,495,000</u>
Sales		\$4,250,000
Cost of goods sold		<u>3,495,000</u>
Gross profit		<u>\$ 755,000</u>

(c)

Weighted-average

Beginning inventory	\$ -
Plus: Purchases	<u>4,325,000</u>
Cost of goods available for sale	\$4,325,000
Less: Ending inventory (55 X \$16,320.75)	<u>897,641</u>
Cost of goods sold (210 X \$16,320.75)	<u>\$3,427,359</u>

Weighted-average cost is \$16,320.75 (\$4,325,000/265 units)

Sales	\$4,250,000
Cost of goods sold	<u>3,427,359</u>
Gross profit	<u>\$ 822,641</u>

(d)

The highest gross profit (\$865,000) is produced under FIFO.

The most current cost in inventory is reported under FIFO.

The most current cost on the income statement is reported under LIFO.

The lowest profit and tax obligation is produced under LIFO.

I-08.03

Perpetual inventory - application of methods

(a) FIFO perpetual:

Date	Purchases	Sales	Cost of Goods Sold	Balance
1-Jan				5,000 X \$20 = \$100,000
5-Jan				5,000 X \$20 = \$100,000
	7,000 X \$21 = \$147,000			7,000 X \$21 = \$147,000
				\$247,000
12-Jan		9,000 @ \$35 = \$315,000	5,000 X \$20 = \$100,000	
			4,000 X \$21 = \$84,000	3,000 X \$21 = \$63,000
			\$184,000	
17-Jan				3,000 X \$21 = \$63,000
	4,000 X \$22 = \$88,000			4,000 X \$22 = \$88,000
				\$151,000
26-Jan		3,000 @ \$37 = \$111,000	3,000 X \$21 = \$63,000	4,000 X \$22 = \$88,000
31-Jan				4,000 X \$22 = \$88,000

(b) Moving average:

Date	Purchases	Sales	Cost of Goods Sold	Balance
1-Jan				5,000 X \$20 = \$100,000
5-Jan				5,000 X \$20 = \$100,000
	7,000 X \$21 = \$147,000			7,000 X \$21 = \$147,000
				\$247,000
				(Note: \$247,000/12,000 units = \$20.58333 per unit)
12-Jan		9,000 @ \$35 = \$315,000	9,000 X \$20.58333 = \$185,250	3,000 X \$20.58333 = \$61,750
17-Jan				3,000 X \$20.58333 = \$61,750
	4,000 X \$22 = \$88,000			4,000 X \$22 = \$88,000
				\$61,750 + \$88,000 = \$149,750
				(Note: \$149,750/7,000 units = \$21.3929 per unit)
26-Jan		3,000 @ \$37 = \$111,000	3,000 X \$21.3929 = \$64,179	4,000 X \$21.3929 = \$85,571
31-Jan				4,000 X \$21.3929 = \$85,571

(c)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
7-Jan	Inventory		147,000	
	Accounts Payable			147,000
	<i>Purchased \$147,000 of inventory on account (7,000 X \$21)</i>			
12-Jan	Accounts Receivable		315,000	
	Sales			315,000
	<i>Sold merchandise on account (9,000 X \$35)</i>			
12-Jan	Cost of Goods Sold		184,000	
	Inventory			184,000
	<i>To record the cost of merchandise sold ((5,000 X \$20) + (4,000 X \$21))</i>			
17-Jan	Inventory		88,000	
	Accounts Payable			88,000
	<i>Purchased \$88,000 of inventory on account (4,000 X \$22)</i>			
26-Jan	Accounts Receivable		111,000	
	Sales			111,000
	<i>Sold merchandise on account (3,000 X \$37)</i>			
26-Jan	Cost of Goods Sold		63,000	
	Inventory			63,000
	<i>To record the cost of merchandise sold (3,000 X \$21)</i>			

(d)

The Inventory account will contain a balance of \$88,000 (\$100,000 beginning balance + \$147,000 - \$184,000 + \$88,000 - \$63,000). The ledger balance matches the balance on the schedule prepared in part (a).

The FIFO method should produce the same results under a periodic application. The ending inventory of 4,000 units would all come from the last purchase at \$22 per unit, or \$88,000. (Note that LIFO perpetual versus LIFO periodic may produce different outcomes).

(e)

Sialkot will have a higher income under the FIFO method. The sales are the same (\$315,000 + \$111,000 = \$416,000), but cost of goods sold is \$6,000 less with FIFO. (LIFO COGS = \$187,000 + \$66,000 = \$253,000; FIFO COGS = \$184,000 + \$63,000 = \$247,000).

(f)

Global divergence in accounting standards creates numerous differences in accounting measurements. The world is working to harmonize GAAP across all venues. This effort is generally a shared goal, but challenges over issues such as LIFO's acceptability may take years to resolve.

I-08.04

(a)

First Team Member – Assuming FIFO, identify if the lender conditions are anticipated to be met.

	Purchases	Available for Sale	Cost of Goods Sold	Ending Inventory
Q1	4,000 units @ \$2,000 each	\$ 8,000,000	\$ 8,000,000	\$ -
Q2	6,000 units @ \$2,200 each	13,200,000	13,200,000	-
Q3	6,000 units @ \$2,400 each	14,400,000	14,400,000	-
Q3	2,000 units @ \$2,400 each	4,800,000	-	4,800,000
Q4	10,000 units @ \$2,600 each	26,000,000	-	26,000,000
			<u>\$35,600,000</u>	<u>\$30,800,000</u>

Gross Profit Rate

Sales (16,000 X \$5,000)	100.00%	\$80,000,000
Cost of goods sold	44.50%	<u>35,600,000</u>
Gross profit	55.50%	<u>\$44,400,000</u>

Inventory Turnover

Cost of goods sold	\$35,600,000
÷ Ending inventory (substituted for average inventory)	÷30,800,000
Turnover rate	1.16

Current Ratio

Current assets (\$5,500,000 + \$30,800,000)	\$36,300,000
÷ Current liabilities	÷ 4,750,000
Current ratio	7.64

The inventory turnover ratio of 1.4 is not satisfied.

(b)

Second Team Member -- Obtain the first team member's results. If all lender conditions were not met, determine if a change in planned 4th quarter purchases would allow all conditions to be met.

There are many opportunities to adjust 4th quarter purchases and change the results of the analysis. Here, the 4th quarter planned purchases are reduced in half, and all conditions are met:

	Purchases	Available for Sale	Cost of Goods Sold	Ending Inventory
Q1	4,000 units @ \$2,000 each	\$ 8,000,000	\$ 8,000,000	\$ -
Q2	6,000 units @ \$2,200 each	13,200,000	13,200,000	-
Q3	6,000 units @ \$2,400 each	14,400,000	14,400,000	-
Q3	2,000 units @ \$2,400 each	4,800,000	-	4,800,000
Q4	5,000 units @ \$2,600 each	13,000,000	-	13,000,000
			<u>\$35,600,000</u>	<u>\$17,800,000</u>

Gross Profit Rate

Sales (16,000 X \$5,000)	100.00%	\$80,000,000
Cost of goods sold	44.50%	<u>35,600,000</u>
Gross profit	55.50%	<u>\$44,400,000</u>

Inventory Turnover

Cost of goods sold	\$35,600,000
÷ Ending inventory (substituted for average inventory)	÷17,800,000
Turnover rate	2.00

Current Ratio

Current assets (\$5,500,000 + \$17,800,000)	\$23,300,000
÷ Current liabilities	÷ 4,750,000
Current ratio	4.91

(c)

Third Team Member – Assuming LIFO, identify if the lender conditions are anticipated to be met.

	Purchases	Available for Sale	Cost of Goods Sold	Ending Inventory
Q1	4,000 units @ \$2,000 each	\$8,000,000	\$ -	\$ 8,000,000
Q2	6,000 units @ \$2,200 each	13,200,000	-	13,200,000
Q3	2,000 units @ \$2,400 each	4,800,000	-	4,800,000
Q3	6,000 units @ \$2,400 each	14,400,000	14,400,000	-
Q4	10,000 units @ \$2,600 each	26,000,000	26,000,000	-
			<u>\$40,400,000</u>	<u>\$26,000,000</u>

Gross Profit Rate

Sales (16,000 X \$5,000)	100%	\$80,000,000
Cost of goods sold	50.50%	<u>40,400,000</u>
Gross profit	49.50%	<u>\$39,600,000</u>

Inventory Turnover

Cost of goods sold		\$40,400,000
÷ Ending inventory (substituted for average inventory)		÷26,000,000
Turnover rate		1.55

Current Ratio

Current assets (\$5,500,000 + \$26,000,000)		\$31,500,000
÷ Current liabilities		÷ 4,750,000
Current ratio		6.63

The gross profit ratio of 50% is not satisfied.

(d)

Fourth Team Member – Obtain the third team member's results. If all lender conditions were not met, determine if a change in planned 4th quarter purchases would allow all conditions to be met.

There are many opportunities to adjust 4th quarter purchases and change the results of the analysis. Here, the 4th quarter planned purchases are reduced in half, and all conditions are met:

	Purchases	Available for Sale	Cost of Goods Sold	Ending Inventory
Q1	4,000 units @ \$2,000 each	\$8,000,000	\$ -	\$ 8,000,000
Q2	3,000 units @ \$2,200 each	6,600,000	-	6,600,000
Q2	3,000 units @ \$2,200 each	6,600,000	6,600,000	-
Q3	8,000 units @ \$2,400 each	19,200,000	19,200,000	-
Q4	5,000 units @ \$2,600 each	13,000,000	13,000,000	-
			<u>\$38,800,000</u>	<u>\$14,600,000</u>

Gross Profit Rate

Sales (16,000 X \$5,000)	100.00%	\$80,000,000
Cost of goods sold	48.50%	<u>38,800,000</u>
Gross profit	51.50%	<u>\$41,200,000</u>

Inventory Turnover

Cost of goods sold	\$38,800,000
÷ Ending inventory (substituted for average inventory)	÷14,600,000
Turnover rate	2.66

Current Ratio

Current assets (\$5,500,000 + \$14,600,000)	\$20,100,000
÷ Current liabilities	÷ 4,750,000
Current ratio	4.23

(e)

Fifth Team Member – Assuming the weighted-average inventory method, identify if the lender conditions are anticipated to be met.

	Purchases	Available for Sale	
Q1	4,000 units @ \$2,000 each	\$ 8,000,000	
Q2	6,000 units @ \$2,200 each	13,200,000	\$66,400,000/28,000 units = \$2,371.43
Q3	8,000 units @ \$2,400 each	19,200,000	average cost
Q4	10,000 units @ \$2,600 each	<u>26,000,000</u>	ending inventory = 12,000 units X
		<u>\$66,400,000</u>	\$2,371.43 = \$28,457,143

Gross Profit Rate

Sales (16,000 X \$5,000)	100.00%	\$80,000,000
Cost of goods sold (16,000 x \$2,371.43)	47.43%	<u>37,942,857</u>
Gross profit	52.57%	<u>\$42,057,143</u>

Inventory Turnover

Cost of goods sold		\$37,942,857
÷ Ending inventory (substituted for average inventory)		÷ 28,457,143
Turnover rate		1.33

Current Ratio

Current assets (\$5,500,000 + \$28,457,143)		\$33,957,143
÷ Current liabilities		÷ 4,750,000
Current ratio		7.15

The inventory turnover ratio of 1.4 is not satisfied.

(f)

Sixth Team Member – Obtain the fifth team member's results. If all lender conditions were not met, determine if a change in planned 4th quarter purchases would allow all conditions to be met.

There are many opportunities to adjust 4th quarter purchases and change the results of the analysis. Here, the 4th quarter planned purchases are reduced in half, and all conditions are met:

	Purchases	Available for Sale	
Q1	4,000 units @ \$2,000 each	\$ 8,000,000	
Q2	6,000 units @ \$2,200 each	13,200,000	\$53,400,000/23,000 units = \$2,321.74 average cost
Q3	6,000 units @ \$2,400 each	14,400,000	
Q3	2,000 units @ \$2,400 each	4,800,000	ending inventory = 7,000 units X \$2,321.74 = \$16,252,174
Q4	5,000 units @ \$2,600 each	<u>13,000,000</u>	
		<u>\$53,400,000</u>	

Gross Profit Rate

Sales (16,000 X \$5,000)	100.00%	\$80,000,000
Cost of goods sold (16,000 x \$2,321.74)	46.43%	<u>37,147,826</u>
Gross profit	53.57%	<u>\$42,852,174</u>

Inventory Turnover

Cost of goods sold	\$37,147,826
÷ Ending inventory (substituted for average inventory)	÷16,252,174
Turnover rate	2.29

Current Ratio

Current assets (\$5,500,000 + \$16,252,174)	\$21,752,174
÷ Current liabilities	÷ 4,750,000
Current ratio	4.58

- (g) The choice of method significantly impacts the amounts and ratios. Likewise, the timing of purchases impacts the various measures, no matter which method is used. The only exception is gross profit under FIFO; it is the same independent of the purchasing pattern. The students should “learn” that a company’s inventory methods and strategies can materially effect financial results. Reinforce that a financial statement user should look beyond just the bottom line and other key statistics.

The various errors are analyzed below. Joyce will not be happy with the revised data.

A spreadsheet of beginning inventory included 35 Zing golf bags at a cost of \$20 each. These particular bags were the nicest in the store, and the unit cost was actually \$200. The error was the result of incorrect data entry into the spreadsheet.

This error caused an understatement of beginning inventory of \$6,300 ($(\$200 \times 35) - (\$20 \times 35)$). Understating beginning inventory understates the cost assigned to units sold during the year, and overstates gross profit.

The ending inventory value was the result of a physical count on December 31, 20X8. The count failed to include 2,400 imprinted logo golf balls that were in the custody of employees who were going to be giving them away as promotional items at a New Year's Day parade on January 1, 20X9. These balls cost \$1.50 each.

This error caused an understatement of ending inventory of \$3,600 ($2,400 \times \1.50). Understating ending inventory overstates the cost assigned to units sold during the year, and understates gross profit.

The company experienced a theft loss during 20X8. The theft consisted of 6 sets of Caldwadey golf clubs that normally sell for \$1,000 each, and provide a gross profit margin of 45%. The insurance company purchased replacement goods and delivered them to Southwest Golf Shop. These club sets were included in the year end physical inventory and valued at \$1,000 each.

The goods should have been included in inventory at their cost of \$550 ($\$1,000 \times 55\%$). This error caused an overstatement of ending inventory of \$2,700 ($(\$1,000 - \$550) \times 6$). Overstating ending inventory understates the cost assigned to units sold during the year, and overstates gross profit.

In 20X8, the company consigned golf apparel with a retail value of \$30,000 to a vendor at a local golf tournament. The cost to retail percentage on apparel is 60%. At the conclusion of the tournament, the vendor returned \$12,000 (at retail) of goods and \$18,000 in cash. The agreement was that Southwest Golf Shop would pay the vendor a commission equal to 15% of the gross profit margin on sales. The commission has not yet been calculated or paid.

The commission owed is \$1,080 ($\$18,000$ in sales \times 40% profit margin \times 15% commission rate). This expense should be included in operating expenses.

At year end, the company had 10 units of the Big Face driver in stock. The drivers had a unit cost of \$300 and were included in the year end inventory at \$3,000 total. The manufacturer of Big Face has just announced a new driver, the Square Face. These units will render the Big Face mostly obsolete. Even though the manufacturer will continue to offer Big Face for sale at a dealer cost of \$300, it is anticipated the customers will now be willing to pay no more than \$200 retail for the item.

The inventory should be reduced by \$1,000 (10 units \times \$100 decline in value). Inventory should not be carried at more than its net realizable value. Since this specific situation would appear to be a normal obsolescence issue, it is reasonable to reflect the write down as an increase in overall cost of goods sold.

REVISED DATA:

Sales	\$500,000
Cost of goods sold ($\$260,000 + \$6,300 - \$3,600 + \$2,700 + \$1,000$)	266,400
Gross profit ($\$240,000 - \$6,300 + \$3,600 - \$2,700 - \$1,000$)	233,600
Operating expenses ($\$200,000 + \$1,080$)	201,080
Income before tax	32,520
Ending inventory ($\$265,000 + \$3,600 - \$2,700 - \$1,000$)	\$264,900
Beginning inventory ($\$230,000 + \$6,300$)	236,300

NOTE TO INSTRUCTOR: The problem did not request a correcting entry. An extraordinary student might be curious about a correcting entry. One approach would appear as follows:

Operating Expense (to record commission cost)	1,080	
Cost of Goods Sold (to increase from \$260,000 to \$266,400)	6,400	
Inventory (to reduce from \$265,000 to \$264,900)		100
Retained Earnings (understatement of prior year's income)		6,300
Commission Payable (to record obligation for commission cost)		1,080

Chapter 9 Solutions

Basic Solutions

Classification of investments

B-09.01

	Type	Basic Accounting
Debt Investments:		
Investment in debt with a plan to hold until a particular future event of payoff	Held-to-Maturity	Amortized Cost
Investment in debt with the goal of a near-term profit	Trading	Fair Value - gains/losses to operating income
Investments in debt other than one of the above two types	Available-for-Sale	Fair Value - gains/losses to OCI
Equity Investments:		
Investment in equity generally over 20% but not giving control	Significant Influence	Equity Method
Investment in equity usually over 50%	Control	Consolidation
Relatively permanent investments in equity other than one of the above two types	Long-term investment	Fair Value - gains/losses to operating income

The Securities and Exchange Commission Financial Accounting Standards Board is increasingly issuing standards focused on fair value accounting.

The fair value standards contemplate revaluing all financial categories of assets and liabilities.

The fair value standards pertain to financial assets, ~~but not~~ and financial liabilities.

The fair value measurements are ~~mandatory~~; elective.

The fair value standards represent a ~~narrowing~~ an expansion of the opportunities to depart from the historical cost tradition.

The only patently incorrect statement made by the professor was the reference to the “current operating approach.” The profession has embraced an all “inclusive approach.” Point out to the students that the ultimate goal will be to get the expert witness to make statements in support of the plaintiff’s position. It is obvious that the company applied “available for sale” accounting to “trading securities.” This was wrong. If the expert can be drawn into making statements that support the plaintiff’s position, little would be gained by impeaching the witness over the incorrect comment. On the other hand, if the expert is unable to respond to questioning differentiating between “available for sale” accounting versus accounting for “trading securities,” it might then prove beneficial to attack the patently untrue statement.

Potential questions (anticipated answer):

In your testimony, you said that the company had not realized any losses. What is meant by the term realize, and is the term “realize” the same thing as “recognize.” (realize is convert to cash or claim to cash (i.e., sale) while recognize is to record into the accounts)

Under generally accepted accounting principles, should the company have “recognized” the losses on its investments? (yes)

Professor, please describe for the jury the difference in “trading securities” and “available for sale securities.” (intent of investment)

Is there any difference in the way an investment asset is accounted for based on it being “trading” versus “available for sale”? (no)

Then, what is the key difference in the accounting for “trading securities” versus “available for sale securities.” (gains/losses impact net income if trading securities)

Isn't it true that the accounting method used by the company for its trading securities was the one that is appropriate only for the available for sale category? (Yes)

If the company had followed the methods appropriate for trading securities, would the decline in value would have reduced income? (yes)

Assuming that the securities in question were trading securities, did the company account for them correctly? (no)

To the best of your knowledge and belief, were the securities in question “trading securities” or “available for sale securities”? (trading)

Isn't it true that the profession has generally embraced an “all inclusive approach” to measuring income? (yes)

(a)

The investment should be accounted for as an "available-for-sale" investment. Management intent is crucial to this outcome. If the intent were to trade for a near-term profit, the investment would be accounted for as a trading security, and gains/losses would be part of "operating income" rather than "other comprehensive income."

(b)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
5-Aug	Available-for-Sale Debt Securities		90,000	
	Cash			90,000
	<i>To record the purchase of Southern Rail debt</i>			
31-Aug	Available-for-Sale Debt Securities		10,000	
	Unrealized Gain/Loss - OCI			10,000
	<i>To record a \$10,000 increase in the value Southern Rail debt</i>			
30-Sep	Unrealized Gain/Loss - OCI		15,000	
	Available-for-Sale Debt Securities			15,000
	<i>To record a \$15,000 decrease in the value Southern Rail debt</i>			
15-Oct	Cash		2,500	
	Interest Income			2,500
	<i>To record the receipt of interest income</i>			
31-Oct	Available-for-Sale Debt Securities		10,000	
	Unrealized Gain/Loss - OCI			10,000
	<i>To record a \$10,000 increase in the value Southern Rail debt</i>			

Bond investment purchased at par

B-09.05

(a)(b)(c)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
Issue	Investment in Bonds		100,000	
	Cash			100,000
	<i>To record the purchase of \$100,000, 8%, 5-year bonds at par -- interest payable semiannually</i>			
Interest	Cash		4,000	
	Interest Income			4,000
	<i>To record the receipt of an interest payment (\$100,000 par X .08 interest X 6/12 months)</i>			
Maturity	Cash		100,000	
	Investment in Bonds			100,000
	<i>To record the redemption of bond investment at maturity</i>			

(d)

Total cash outflow was \$100,000, and total cash inflow was \$140,000 ($(\$4,000 \times 10 \text{ periods}) + \$100,000$). The \$40,000 difference is equivalent to the interest income that would be recognized over time ($\$4,000 \times 10 \text{ periods}$).

(a)(b)(c)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
Issue	Investment in Bonds		103,000	
	Cash			103,000
	<i>To record the purchase of \$100,000, 8%, 6-year bonds at 103 – interest semiannually</i>			
Interest	Cash		4,000	
	Investment in Bonds			250
	Interest Income			3,750
	<i>To record the receipt of an interest payment (\$100,000 par X .08 interest X 6/12 months = \$4,000; \$3,000 premium X 6 months/72 months = \$250 amortization)</i>			
Maturity	Cash		100,000	
	Investment in Bonds			100,000
	<i>To record the redemption of bond investment at maturity</i>			

(d)

Total cash outflow was \$103,000, and total cash inflow was \$148,000 ($(\$4,000 \times 12 \text{ periods}) + \$100,000$). The \$45,000 difference is equivalent to the interest income that would be recognized over time ($\$3,750 \times 12 \text{ periods}$).

Bond investment purchased at a discount

B-09.07

(a)(b)(c)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
Issue	Investment in Bonds		98,000	
	Cash			98,000
	<i>To record the purchase of \$100,000, 8%, 4-year bonds at 98 -- interest semiannually</i>			
Interest	Cash		4,000	
	Investment in Bonds		250	
	Interest Income			4,250
	<i>To record the receipt of an interest payment (\$100,000 par X .08 interest X 6/12 months = \$4,000; \$2,000 discount X 6 months/48 months = \$250 amortization)</i>			
Maturity	Cash		100,000	
	Investment in Bonds			100,000
	<i>To record the redemption of bond investment at maturity</i>			

(d)

Total cash outflow was \$98,000, and total cash inflow was \$132,000 ($(\$4,000 \times 8 \text{ periods}) + \$100,000$). The \$34,000 difference is equivalent to the interest income that would be recognized over time ($\$4,250 \times 8 \text{ periods}$).

(a)

The investment should be accounted for via the equity method. The equity method is used for investments where the investor has the ability to exert significant influence over the investee. The presumption is that the ability to exert significant influence occurs at investment levels generally at the 20% and above level (however, this presumption can be overcome and the equity can be used for investments at lower levels, and vice versa). Note that market value adjustments are generally not recorded for investments accounted for under the equity method.

(b)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
1-Jun	Investment in Reginald		840,000	
	Cash			840,000
	<i>To record the purchase of 30,000 shares of Reginald at \$28</i>			
30-Jun	Investment in Reginald		24,000	
	Investment Income			24,000
	<i>To record share of Reginald's reported income (30% X \$80,000)</i>			
15-Jul	Cash		15,000	
	Investment in Reginald			15,000
	<i>To record a \$0.50 per share cash dividend on the investment</i>			
31-Jul	Investment in Reginald		18,000	
	Investment Income			18,000
	<i>To record share of Reginald's reported income (30% X \$60,000)</i>			

(c)

In the absence of significant influence, the investment would initially be recorded at cost. Subsequent adjustments would be made based on changes in market value of the stock. The manner of recognizing these value changes would depend on whether the intent of the investment was "trading" or "available for sale." In either case, the dividends would be recorded as dividend income.

Consolidating Spreadsheet				
	A	B	C	D
1	Accounts	Packed Powder	Snowfall	Consolidated
2	Cash	\$ 450,000	\$ 60,000	\$ 510,000
3	Accounts receivable	400,000	185,000	585,000
4	Inventory	1,250,000	125,000	1,375,000
5	Investment in Snowfall	2,000,000	-	-
6	Land	850,000	380,000	1,230,000
7	Buildings and equipment (net)	<u>1,300,000</u>	<u>1,700,000</u>	<u>3,000,000</u>
8		<u>\$6,250,000</u>	<u>\$2,450,000</u>	<u>\$6,700,000</u>
9				
10	Accounts payable	\$ 760,000	\$ 150,000	\$ 910,000
11	Notes payable	2,400,000	300,000	2,700,000
12	Common stock	500,000	400,000	500,000
13	Retained earnings	<u>2,590,000</u>	<u>1,600,000</u>	<u>2,590,000</u>
14		<u>\$6,250,000</u>	<u>\$2,450,000</u>	<u>\$6,700,000</u>

B-09.10

Goodwill in a consolidated balance sheet

	A	B	C	D
1	Accounts	Parrot	Sparrow	Consolidated
2	Cash	\$1,450,000	\$ 160,000	\$ 1,610,000
3	Accounts receivable	430,000	335,000	765,000
4	Inventory	850,000	725,000	1,575,000
5	Investment in Sparrow	5,000,000	-	-
6	Land	550,000	500,000	1,350,000
7	Buildings and equipment (net)	1,700,000	2,530,000	4,230,000
8	* Goodwill	-	-	1,700,000
9		<u>\$9,980,000</u>	<u>\$4,250,000</u>	<u>\$11,230,000</u>
10				
11	Accounts payable	\$ 460,000	\$ 450,000	\$ 910,000
12	Notes payable	1,700,000	800,000	2,500,000
13	Common stock	2,530,000	1,000,000	2,530,000
14	Retained earnings	<u>5,290,000</u>	<u>2,000,000</u>	<u>5,290,000</u>
15		<u>\$9,980,000</u>	<u>\$4,250,000</u>	<u>\$11,230,000</u>

* The goodwill is the excess of the purchase price over the fair value of the assets and liabilities acquired (\$5,000,000 - \$3,000,000 book value of Sparrow - \$300,000 additional attributable to fair value of land = \$1,700,000)

Involved Solutions

Investment accounting

I-09.01

(a)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
Invest	Short-term Investments	550,000	
	Cash		550,000
	<i>To record the purchase of 50,000 shares of Lynch at \$11</i>		
Dividend	Cash	25,000	
	Dividend Income		25,000
	<i>To record a \$0.50 per share cash dividend on Lynch investment</i>		
Income	No entry		
	<i>Lynch Corporation reported net income of \$4,000,000 for the year</i>		
Price	Short-term Investments	100,000	
	Unrealized Gain on Investments		100,000
	<i>To record a \$2 per share increase in the value of 50,000 shares of Lynch stock</i>		

(b)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
Invest	Available-for-Sale Debt Securities		200,000	
	Cash			200,000
	<i>To record the purchase of Graham debt securities</i>			
Interest	Cash		10,000	
	Interest Income			10,000
	<i>To record receipt of interest payments</i>			
Income	No entry			
	<i>Graham Corporation reported net income of \$7,000,000 for the year</i>			
Price	Unrealized Gain/Loss - OCI		50,000	
	Available-for-Sale Debt Securities			50,000
	<i>To record decrease in value of investment in Graham debt securities</i>			

(c)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
Invest	Investment		18,000,000	
	Cash			18,000,000
	<i>To record the purchase of 600,000 shares of Buffet at \$30</i>			
Dividend	Cash		150,000	
	Investment			150,000
	<i>To record a \$0.25 per share cash dividend on Buffet investment</i>			
Income	Investment		480,000	
	Investment Income			480,000
	<i>Buffet Corporation reported net income of \$1,200,000 for the year (X 40% share = \$480,000)</i>			
Price	No entry			
	<i>Buffet Corporation's closing stock price at the end of the year was \$33 per share</i>			

Bonds and amortization table

I-09.02

(a)

Spreadsheet							
			fx				
	A	B	C	D	E	F	G
1	Date		Cash Received		Interest Income		Investment in Bonds
2	1-1-X1		\$ (100,000.00)	cr			\$100,000.00
3	6-30-X1		3,500.00	dr	\$ 3,500.00	cr	100,000.00
4	12-31-X1		3,500.00	dr	3,500.00	cr	100,000.00
5	6-30-X2		3,500.00	dr	3,500.00	cr	100,000.00
6	12-31-X2		3,500.00	dr	3,500.00	cr	100,000.00
7	6-30-X3		3,500.00	dr	3,500.00	cr	100,000.00
8	12-31-X3		3,500.00	dr	3,500.00	cr	100,000.00
9	6-30-X4		3,500.00	dr	3,500.00	cr	100,000.00
10	12-31-X4		3,500.00	dr	3,500.00	cr	100,000.00
11	6-30-X5		3,500.00	dr	3,500.00	cr	100,000.00
12	12-31-X5		3,500.00	dr	3,500.00	cr	100,000.00
13	6-30-X6		3,500.00	dr	3,500.00	cr	100,000.00
14	12-31-X6		3,500.00	dr	3,500.00	cr	100,000.00
15	12-31-X6		<u>100,000.00</u>	dr	<u>-</u>		-
16			<u>\$ 42,000.00</u>		<u>\$42,000.00</u>		
17							

(b)

Spreadsheet									
			fx						
1	A	B	C	D	E	F	G	H	I
	Date		Cash Received		Interest Income		Discount Amortization*		Investment in Bonds
2	1-1-X1		\$ (95,168.33)	cr					\$95,168.33
3	6-30-X1		3,000.00	dr	\$ 3,402.64	cr	\$ 402.64	dr	95,570.97
4	12-31-X1		3,000.00	dr	3,402.64	cr	402.64	dr	95,973.61
5	6-30-X2		3,000.00	dr	3,402.64	cr	402.64	dr	96,376.25
6	12-31-X2		3,000.00	dr	3,402.64	cr	402.64	dr	96,778.89
7	6-30-X3		3,000.00	dr	3,402.64	cr	402.64	dr	97,181.53
8	12-31-X3		3,000.00	dr	3,402.64	cr	402.64	dr	97,584.17
9	6-30-X4		3,000.00	dr	3,402.64	cr	402.64	dr	97,986.81
10	12-31-X4		3,000.00	dr	3,402.64	cr	402.64	dr	98,389.45
11	6-30-X5		3,000.00	dr	3,402.64	cr	402.64	dr	98,792.09
12	12-31-X5		3,000.00	dr	3,402.64	cr	402.64	dr	99,194.73
13	6-30-X6		3,000.00	dr	3,402.64	cr	402.64	dr	99,597.37
14	12-31-X6		3,000.00	dr	3,402.63	cr	402.63	dr	100,000.00
15	12-31-X6		<u>100,000.00</u>	dr	<u>-</u>		<u>-</u>		<u>-</u>
16			<u>\$ 40,831.67</u>		<u>\$40,831.67</u>		<u>\$4,831.67</u>		
17									

* Discount amortization; $\$100,000 - \$95,168.33 = \$4,831.67$; $\$4,831.67 \div 12$ six-month periods = $\$402.64$

(c)

Spreadsheet									
	fx								
	A	B	C	D	E	F	G	H	I
1	Date		Cash Received		Interest Income		Premium Amortization*		Investment in Bonds
2	1-1-X1		\$ (104,831.67)	cr					\$104,831.67
3	6-30-X1		4,000.00	dr	\$3,597.36	cr	\$ 402.64	dr	104,429.03
4	12-31-X1		4,000.00	dr	3,597.36	cr	402.64	dr	104,026.39
5	6-30-X2		4,000.00	dr	3,597.36	cr	402.64	dr	103,623.75
6	12-31-X2		4,000.00	dr	3,597.36	cr	402.64	dr	103,221.11
7	6-30-X3		4,000.00	dr	3,597.36	cr	402.64	dr	102,818.47
8	12-31-X3		4,000.00	dr	3,597.36	cr	402.64	dr	102,415.83
9	6-30-X4		4,000.00	dr	3,597.36	cr	402.64	dr	102,013.19
10	12-31-X4		4,000.00	dr	3,597.36	cr	402.64	dr	101,610.55
11	6-30-X5		4,000.00	dr	3,597.36	cr	402.64	dr	101,207.91
12	12-31-X5		4,000.00	dr	3,597.36	cr	402.64	dr	100,805.27
13	6-30-X6		4,000.00	dr	3,597.36	cr	402.64	dr	100,402.63
14	12-31-X6		4,000.00	dr	3,597.37	cr	402.63	dr	100,000.00
15	12-31-X6		<u>100,000.00</u>	dr	<u>-</u>		<u>-</u>		<u>-</u>
16			<u>\$ 43,168.33</u>		<u>\$43,168.33</u>		<u>\$4,831.67</u>		
17									

* Premium amortization; $\$4,831.67 \div 12$ six-month periods = $\$402.64$

(d)

The 7% bonds were purchased at par, implying that the market rate of interest for such bonds was 7%. The 6% bonds offered on the same date would not be as attractive due to their lower rate. As a result, they were available for purchase at a discount. The opposite was true for the 8% bonds.

(a)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
Issue	Investment in Bonds		100,000.00	
	Cash			100,000.00
	<i>To record the purchase of \$100,000, 7%, 6-year bonds at par – interest semiannually</i>			
Interest	Cash		3,500.00	
	Interest Income			3,500.00
	<i>To record the receipt of an interest payment (\$100,000 par X .07 interest X 6/12 months = \$3,500)</i>			
Maturity	Cash		100,000.00	
	Investment in Bonds			100,000.00
	<i>To record the redemption of bond investment at maturity</i>			

(b)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
Issue	Investment in Bonds		95,168.33	
	Cash			95,168.33
	<i>To record the purchase of \$100,000, 6%, 6-year bonds at a discount – interest semiannually</i>			
Interest	Cash		3,000.00	
	Investment in Bonds		402.64	
	Interest Income			3,402.64
	<i>To record the receipt of an interest payment (\$100,000 par X .06 interest X 6/12 months = \$3,000; \$4,831.67 discount / 12 periods = \$402.64 amortization)</i>			
Maturity	Cash		100,000.00	
	Investment in Bonds			100,000.00
	<i>To record the redemption of bond investment at maturity</i>			

(c)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
Issue	Investment in Bonds	104,831.67	
	Cash		104,831.67
	<i>To record the purchase of \$100,000, 6%, 6-year bonds at a premium -- interest semiannually</i>		
Interest	Cash	4,000.00	
	Investment in Bonds		402.64
	Interest Income		3,597.36
	<i>To record the receipt of an interest payment (\$100,000 par X .08 interest X 6/12 months = \$4,000; \$4,831.67 premium/12 periods = \$402.64 amortization)</i>		
Maturity	Cash	100,000.00	
	Investment in Bonds		100,000.00
	<i>To record the redemption of bond investment at maturity</i>		

(a)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
1-Jan	Investment in Delta		20,000,000	
	Cash			20,000,000
	<i>To record the purchase of 40% of the shares of Delta</i>			
31-Dec	Investment in Delta		5,200,000	
	Investment Income			5,200,000
	<i>To record share of Delta's income (40% X \$13,000,000)</i>			
31-Dec	Cash		1,200,000	
	Investment in Delta			1,200,000
	<i>To record share of Delta's dividends (40% X \$3,000,000)</i>			

(b)

Delta's equity increased from \$50,000,000 to \$60,000,000 ($\$50,000,000 + \$13,000,000 - \$3,000,000$). This \$10,000,000 correlates with the \$4,000,000 increase (40%) in the Investment in Delta account on Coastal's books ($\$20,000,000$ beginning balance + $\$5,200,000$ debit - $\$1,200,000$ credit = $\$24,000,000$ ending balance). This correlation between the equity of the investee and Investment account of the investor is expected, and help explains why the term "equity" method is used to describe the accounting approach.

The following are summed from the separate statements except:

Building is the parent's building + \$1,550,000 (fair value of sub's building).

Goodwill is the excess of the \$3,000,000 purchase price over the equity of the sub (\$1,268,176) and additional amount assigned to the building (\$1,550,000 fair value - \$688,099 book value of sub's building).

Equity is the parent's equity only.

PRINCETON CORPORATION AND CONSOLIDATED SUBSIDIARY
Balance Sheet
July 1, 20X5

Assets

Current assets

Cash	\$ 599,545	
Accounts receivable	414,589	
Inventories	<u>599,596</u>	\$1,613,730

Property, plant & equipment

Land	\$ 516,566	
Building (net of accumulated depreciation)	2,411,919	
Equipment (net of accumulated depreciation)	<u>1,134,023</u>	4,062,508

Intangible assets

Goodwill	\$ 869,923	
Patent	<u>540,000</u>	<u>1,409,923</u>

Total assets		<u>\$7,086,161</u>
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Liabilities

Current liabilities

Accounts payable	\$ 356,773	
Salaries payable	<u>148,841</u>	\$ 505,614

Long-term liabilities

Loan payable		<u>3,132,179</u>
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Total liabilities		<u>\$3,637,793</u>
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Stockholders' equity

Capital stock	\$2,300,000	
Retained earnings	<u>1,148,368</u>	
Total stockholders' equity		<u>3,448,368</u>

Total liabilities and equity		<u>\$7,086,161</u>
------------------------------	--	--------------------

The investment in Alpha is a short-term equity security investment. It is carried on the balance sheets at fair market value, which was \$500,000 at the beginning of the year and \$510,000 at the end of the year. The increase in value is reflected as an unrealized gain in income, and the dividends are reported as dividend income. The following entries were apparently made:

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
Dividend	Cash		50,000	
	Dividend Income			50,000
	<i>To record dividend income</i>			
Dec. 31	Short-term Investments		10,000	
	Unrealized Gain on Investments			10,000
	<i>To record a \$10,000 increase in the value of Alpha stock</i>			

The investment in Beta is an equity method investment. Dividends received reduce the Investment account and are not recorded as income. Conversely, the investor recognizes a proportionate share of investee income, which is shown in the income statement at \$80,000. The \$30,000 increase in the Investment account (\$830,000 - \$800,000) reflects the effects of the income (\$80,000) less the dividends (\$50,000). The following entries were apparently made:

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
Dividend	Cash		50,000	
	Investment			50,000
	<i>To record the dividend on Beta</i>			
Income	Investment		80,000	
	Investment Income			80,000
	<i>To record proportionate amount of Beta's income</i>			

The investment in Delta is an "available-for-sale" debt investment. It is carried on the balance sheets at fair market value, which was \$675,000 at the end of the year. The decrease in value is reflected as a reduction of other comprehensive income (\$25,000). The investment apparently cost \$700,000 when purchased on August 15. There was \$20,000 of interest income on this investment, included in with the \$73,000 of interest income on the income statement. The following entries were apparently made:

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
Aug. 15	Available-for-Sale Debt Securities	700,000	
	Cash		700,000
	<i>To record the purchase of Delta debt</i>		
Dec. 31	Unrealized Gain/Loss - OCI	25,000	
	Available-for-Sale Debt Securities		25,000
	<i>To record a \$25,000 decrease in the value of Delta debt</i>		
Dec. 31	Cash	20,000	
	Interest Income		20,000
	<i>To record interest income on Delta debt</i>		

The investment in Gamma is a "held-to-maturity" bond investment. Interest income is recognized in the income statement (\$53,000 of the \$73,000). This amount includes the cash portion plus any discount amortization (or minus any premium amortization). The increase in the Investment account (\$844,000 - \$842,000) suggests a discount amortization of \$2,000. The following entries were apparently made:

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
Dec. 31	Cash	51,000	
	Investment in Gamma Bonds	2,000	
	Interest Income		53,000
	<i>To record income and discount amortization</i>		

Chapter 10 Solutions

Basic Solutions

Balance sheet presentation of property, plant, and equipment

B-10.01

Property, Plant & Equipment

Land		\$ 500,000	
Buildings	\$ 1,650,000		
Less: Accumulated depreciation	<u>(472,000)</u>	1,178,000	
Equipment	\$ 2,860,000		
Less: Accumulated depreciation	<u>(1,333,400)</u>	<u>1,526,600</u>	\$3,204,600

The sign cost is computed as follows:

Direct cost of sign (\$25,000 less 20%)	\$20,000
Electrician	1,300
Crane rental	800
Installation crew	1,600
Inspection fee	<u>500</u>
	<u>\$24,200</u>

The freight cost was incurred by the seller, the damage should be charged to repair expense, and the annual permit should be charged to permit expense (or prepaid expense).

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
	Sign	24,200	
	Repair Expense	750	
	Permit Expense	50	
	Cash		25,000
	<i>To record the purchase and installation of sign, along with repair costs and annual permit fees</i>		

Identification of capital expenditures

B-10.03

	Capital		Category			
	Yes	No	Land	Land Improvement	Building	Equipment
Delivery cost of new furniture	✓					✓
Wages paid to guard at office building		✓				
Fees for title insurance on land purchase	✓		✓			
Cost of periodic repainting of parking lot		✓				
Cost of building new sidewalks	✓			✓		
Interest costs on loan to buy equipment		✓				
Computer training class on general commercial software package		✓				
Interest cost on loan during construction period for new building	✓				✓	
Architects fees for new building	✓				✓	
Installation and setup costs on new machinery	✓					✓
Repair of damage to device broken during initial installation		✓				
Safety violation fines at construction site		✓				
Tap fees for connecting new building to city water system	✓				✓	

B-10.04

Lump sum purchase price allocation

Note that the assets were acquired at 70% of fair value (\$4,900,000/\$7,000,000):

	Fair Value	Allocation @ 70% of Fair Value
Land	\$1,000,000	\$ 700,000
Building	2,000,000	1,400,000
Equipment	<u>4,000,000</u>	<u>2,800,000</u>
	<u>\$7,000,000</u>	<u>\$4,900,000</u>

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
	Land	700,000	
	Building	1,400,000	
	Equipment	2,800,000	
	Cash		4,900,000
	<i>To record the lump sum purchase of land, building, and equipment</i>		

Lease classification

B-10.05

	<i>Operating Lease</i>	<i>Financing Lease</i>
The lessee reports the leased asset on its balance sheet		✓
Payments are reported fully as rent expense	✓	
Ownership of the property passes to the lessee by the end of the lease term		✓
The lease term exceeds one year		✓
Interest expense is measured and reported by the lessee		✓
Depreciation of the leased asset is not reported by the lessee	✓	
At the inception of the lease, the lessee records both an asset and liability		✓
The lessee reports a liability for the present value of all future payments anticipated under the lease agreement		✓
The lessor continues to report the tangible asset covered by the lease on its balance sheet	✓	

(a)

Year	Annual Expense	Accumulated Depreciation at End of Year	Annual Expense Calculation
X3	\$280,000	\$280,000	$(\$1,500,000 - \$100,000)/5$
X4	\$280,000	\$560,000	$(\$1,500,000 - \$100,000)/5$
X5	\$280,000	\$840,000	$(\$1,500,000 - \$100,000)/5$
X6	\$280,000	\$1,120,000	$(\$1,500,000 - \$100,000)/5$
X7	\$280,000	\$1,400,000	$(\$1,500,000 - \$100,000)/5$

(b)

Property, Plant & Equipment (20X5)

Equipment	\$1,500,000	
Less: Accumulated depreciation	<u>(840,000)</u>	\$660,000

(c)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
1-Jan	Equipment	1,500,000	
	Cash		1,500,000
	<i>To record the purchase of press</i>		
31-Dec 20X3	Depreciation Expense	280,000	
	Accumulated Depreciation		280,000
	<i>To record 20X3 depreciation</i>		
31-Dec 20X4	Depreciation Expense	280,000	
	Accumulated Depreciation		280,000
	<i>To record 20X4 depreciation</i>		
31-Dec 20X5	Depreciation Expense	280,000	
	Accumulated Depreciation		280,000
	<i>To record 20X5 depreciation</i>		
31-Dec 20X6	Depreciation Expense	280,000	
	Accumulated Depreciation		280,000
	<i>To record 20X6 depreciation</i>		
31-Dec 20X7	Depreciation Expense	280,000	
	Accumulated Depreciation		280,000
	<i>To record 20X7 depreciation</i>		
31-Dec 20X7	Cash	100,000	
	Accumulated Depreciation	1,400,000	
	Equipment		1,500,000
	<i>To record disposal of asset</i>		

(a)

Year	Annual Expense	Accumulated Depreciation at End of Year	Annual Expense Calculation
X6	\$75,000	\$75,000	$\$500,000 \times 1,500/10,000$
X7	\$200,000	\$275,000	$\$500,000 \times 4,000/10,000$
X8	\$150,000	\$425,000	$\$500,000 \times 3,000/10,000$
X9	\$75,000	\$500,000	$\$500,000 \times 1,500/10,000$

(b)

Property, Plant & Equipment (20X7)

Aircraft engine	\$ 750,000	
Less: Accumulated depreciation	<u>(275,000)</u>	\$475,000

(c)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
1-Jan	Aircraft engine	750,000	
	Cash		750,000
	<i>To record the purchase of engine</i>		
31-Dec 20X6	Depreciation Expense	75,000	
	Accumulated Depreciation		75,000
	<i>To record 20X6 depreciation</i>		
31-Dec 20X7	Depreciation Expense	200,000	
	Accumulated Depreciation		200,000
	<i>To record 20X7 depreciation</i>		
31-Dec 20X8	Depreciation Expense	150,000	
	Accumulated Depreciation		150,000
	<i>To record 20X8 depreciation</i>		
31-Dec 20X9	Depreciation Expense	75,000	
	Accumulated Depreciation		75,000
	<i>To record 20X9 depreciation</i>		
31-Dec 20X9	Cash	250,000	
	Accumulated Depreciation	500,000	
	Equipment		750,000
	<i>To record disposal of asset</i>		

B-10.08

Double-declining balance depreciation

(a)

Year	Annual Expense	Accumulated Depreciation at End of Year	Annual Expense Calculation
X1	\$42,500	\$42,500	$\$85,000 \times 50\%$
X2	\$21,250	\$63,750	$(\$85,000 - \$42,500) \times 50\%$
X3	\$10,625	\$74,375	$(\$85,000 - \$63,750) \times 50\%$
X4	\$625	\$75,000	remaining depreciable base

(b)

Property, Plant & Equipment (20X3)

Equipment	\$ 85,000	
Less: Accumulated depreciation	<u>(74,375)</u>	\$10,625

(c)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
1-Jan	Equipment	85,000	
	Cash		85,000
	<i>To record purchase of excavator</i>		
31-Dec 20X1	Depreciation Expense	42,500	
	Accumulated Depreciation		42,500
	<i>To record 20X1 depreciation</i>		
31-Dec 20X2	Depreciation Expense	21,250	
	Accumulated Depreciation		21,250
	<i>To record 20X2 depreciation</i>		
31-Dec 20X3	Depreciation Expense	10,625	
	Accumulated Depreciation		10,625
	<i>To record 20X3 depreciation</i>		
31-Dec 20X4	Depreciation Expense	625	
	Accumulated Depreciation		625
	<i>To record 20X4 depreciation</i>		
31-Dec 20X4	Cash	10,000	
	Accumulated Depreciation	75,000	
	Equipment		85,000
	<i>To record disposal of asset</i>		

B-10.09

Change in estimate for depreciation

Year	Annual Expense	Accumulated Depreciation at End of Year	Annual Expense Calculation
X1	\$7,500	\$7,500	$(\$65,000 - \$35,000)/4$
X2	\$7,500	\$15,000	$(\$65,000 - \$35,000)/4$
X3	\$8,000	\$23,000	$(\$65,000 - \$15,000 - \$2,000)/6$
X4	\$8,000	\$31,000	$(\$65,000 - \$15,000 - \$2,000)/6$
X5	\$8,000	\$39,000	$(\$65,000 - \$15,000 - \$2,000)/6$
X6	\$8,000	\$47,000	$(\$65,000 - \$15,000 - \$2,000)/6$
X7	\$8,000	\$55,000	$(\$65,000 - \$15,000 - \$2,000)/6$
X8	\$8,000	\$63,000	$(\$65,000 - \$15,000 - \$2,000)/6$

Involved Solutions

Terminology and concepts

I-10.01

- 1 Cost minus salvage value
Depreciable base
- 2 Cost minus accumulated depreciation
Book value
- 3 Depreciation is a process of this, rather than valuation
Allocation
- 4 Costs that are added to an asset account
Capital expenditures
- 5 Costs of items added to a land-related account, like paving and landscaping
Land improvements
- 6 A bundled purchase of assets
Lump sum purchase
- 7 Lessee does not report the asset
Operating lease
- 8 Like straight-line, but the denominator is not time
Units-of-output method
- 9 A tax-based allocation of cost that is not GAAP
MACRS
- 10 Justification for expensing small items
Materiality
- 11 Included with land cost
Survey and title fees
- 12 Expensed immediately
Abnormal damage during installation
- 13 Results in less depreciation each year than the year before
Accelerated depreciation

I-10.02

In completing the following schedule, note that Item 4 is allocated 40/160 to land and 120/160 to building. Item 7 is not yet a recordable transaction.

	Land	Land Improvement	Building	Equipment	Expense
Item 1					\$2,500
Item 2		\$ 7,500			
Item 3	\$ 500				
Item 4	37,500		\$112,500		
Item 5				\$1,000	
Item 6					300
Item 7					
Item 8			10,000		
Item 9		25,000			
Item 10					5,000
Totals	\$38,000	\$32,500	\$122,500	\$1,000	\$7,800

A correcting journal entry would include the following:

Land	38,000	
Land Improvement	32,500	
Building	122,500	
Equipment	1,000	
Insurance Expense	2,500	
Office Supplies Expense	300	
Interest Expense	5,000	
Suspense		201,800

(a) Straight-line

Year	Annual Expense	Accumulated Depreciation at End of Year	Annual Expense Calculation
X2	\$52,800	\$52,800	$(\$360,000 - \$96,000) \div 5 \text{ years}$
X3	\$52,800	\$105,600	$(\$360,000 - \$96,000) \div 5 \text{ years}$
X4	\$52,800	\$158,400	$(\$360,000 - \$96,000) \div 5 \text{ years}$
X5	\$52,800	\$211,200	$(\$360,000 - \$96,000) \div 5 \text{ years}$
X6	\$52,800	\$264,000	$(\$360,000 - \$96,000) \div 5 \text{ years}$

(b) Units of Output

Year	Annual Expense	Accumulated Depreciation at End of Year	Annual Expense Calculation
X2	\$40,000	\$40,000	$(\$360,000 - \$96,000) \times 100,000/660,000$
X3	\$52,000	\$92,000	$(\$360,000 - \$96,000) \times 130,000/660,000$
X4	\$60,000	\$152,000	$(\$360,000 - \$96,000) \times 150,000/660,000$
X5	\$64,000	\$216,000	$(\$360,000 - \$96,000) \times 160,000/660,000$
X6	\$48,000	\$264,000	$(\$360,000 - \$96,000) \times 120,000/660,000$

(c) Double-declining balance

Year	Annual Expense	Accumulated Depreciation at End of Year	Annual Expense Calculation
X2	\$144,000	\$144,000	$\$360,000 \times 40\%$
X3	\$86,400	\$230,400	$(\$360,000 - \$144,000) \times 40\%$
X4	\$33,600	\$264,000	See note: $(\$360,000 - \$230,400) \times 40\%$
X5	\$0	\$264,000	n/a
X6	\$0	\$264,000	n/a

The amount calculated for 20X4 (\$51,840) would cause accumulated depreciation to exceed the depreciable base (\$264,000), and depreciation expense is therefore capped (\$33,600).

(d) Straight-line revised

Year	Annual Expense	Accumulated Depreciation at End of Year	Annual Expense Calculation
X2	\$52,800	\$52,800	$(\$360,000 - \$96,000) \div 5 \text{ years}$
X3	\$52,800	\$105,600	$(\$360,000 - \$96,000) \div 5 \text{ years}$
X4	\$50,000	\$155,600	$(\$360,000 - \$105,600 - \$54,400) \div 4 \text{ years}$
X5	\$50,000	\$205,600	$(\$360,000 - \$105,600 - \$54,400) \div 4 \text{ years}$
X6	\$50,000	\$255,600	$(\$360,000 - \$105,600 - \$54,400) \div 4 \text{ years}$
X7	\$50,000	\$305,600	$(\$360,000 - \$105,600 - \$54,400) \div 4 \text{ years}$

Fractional year depreciation calculations

I-10.04

Both assets have depreciation errors. The correct values should be as follows:

Building:

$$\text{Annual expense: } (\$1,200,000 - \$400,000) \div 25 \text{ years} = \$32,000$$

$$\text{Accumulated depreciation: } \$32,000 \times 7.5 \text{ years} = \$240,000$$

Although the annual expense of Wellron was correct, the accumulated depreciation appears to incorrectly reflect a full 8 years of depreciation ($\$32,000 \times 8 = \$256,000$).

Truck:

$$\text{20X6 expense: } (\$80,000 \times 25\% \text{ rate} \times 3/12) = \$5,000$$

$$\text{20X7 expense: } ((\$80,000 - \$5,000 \text{ acc. depr.}) \times 25\% \text{ rate}) = \$18,750$$

$$\text{20X8 expense: } ((\$80,000 - (\$5,000 + \$18,750) \text{ acc. depr.}) \times 25\% \text{ rate}) = \$14,062.50$$

$$\text{Accumulated depreciation: } \$5,000 + \$18,750 + \$14,062.50 = \$37,812.50$$

Multiplying the above correct values by 75/80 arrives at the values reported by Wellron. Apparently, the company incorrectly subtracted the \$5,000 salvage value in determining the base for depreciation. Recall that salvage value is initially ignored with this approach.

Results:

\$37,857.14

Straight line result

\$40,087.46

Double-declining result

Formulas:

=SLN(275000,10000,7)

Straight line result

=DDB(275000,10000,7,3)

Double-declining result

Team-based analysis of depreciation methods used

I-10.06

Each team should return a report identifying five companies, and their depreciation policies. In class, compile the data to summarize the frequency of use of different methods. Highlight unique methods or lives. Be sure to have the students understand that the ratio of accumulated depreciation to asset cost can be used to estimate the age of fixed assets (utilizing information about depreciation methods).

Chapter 11 Solutions

Basic Solutions

Classification of costs subsequent to acquisition

B-11.01

	Classification:		For Capital Items:	
	Capital	Revenue	Replacement	Betterment
Routine cleaning and repainting		✓		
Replacement of expensive cables and pulleys	✓		✓	
Addition of directional drilling motor	✓			✓
Safety inspection fee		✓		
Raising and lowering rig at each new drill site		✓		
Interest cost on loan to buy rig		✓		
Installation of additional advanced lighting system technology	✓			✓
Turntable, deck, and bearings in place of similar worn out unit	✓		✓	
Lubrication of all moving parts		✓		
Welding broken outrigger mount		✓		
Installation of anti-slip flooring on all smooth surface walk ways	✓			✓

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
	Building	20,000	
	Cash		20,000
	<i>To record addition to existing building</i>		
	Land Improvements	2,500	
	Cash		2,500
	<i>To record addition of landscaping</i>		
	Accumulated Depreciation	7,500	
	Cash		7,500
	<i>To record replacement of siding material</i>		
	Repair Expense	500	
	Cash		500
	<i>To record replacement of light bulbs</i>		

Disposition of depreciable asset

B-11.03

Note -- Annual depreciation is \$12,500 ($\$250,000/20$ years)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
Case 1	Accumulated Depreciation		100,000	
	Loss		150,000	
	Boat			250,000
	<i>To record loss of boat (8 years X \$12,500 = \$100,000)</i>			
Case 2	Accumulated Depreciation		150,000	
	Cash		175,000	
	Gain			75,000
	Boat			250,000
	<i>To record sale of boat (12 years X \$12,500 = \$150,000)</i>			
Case 3	Accumulated Depreciation		187,500	
	Cash		60,000	
	Loss		2,500	
	Boat			250,000
	<i>To record sale of boat (15 years X \$12,500 = \$187,500)</i>			

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
Tractor A	Accumulated Depreciation	80,000	
	Trailer	35,000	
	Gain		15,000
	Tractor		100,000
	<i>To record gain on exchange (net book value given \$20,000 (\$100,000 - \$80,000) versus fair value, \$35,000)</i>		
Tractor B	Accumulated Depreciation	25,000	
	Trailer	35,000	
	Loss	15,000	
	Tractor		75,000
	<i>To record loss on exchange (net book value given \$50,000 (\$75,000 - \$25,000) versus fair value, \$35,000)</i>		

Asset impairment considerations

B-11.05

	<i>Impaired?</i>	
	Yes	No
An abandoned building is slated for demolition	✓	
Equipment that will continue to be used as planned in the production of profitable projects; however, a forced sale of the equipment would not recover its book value		✓
Used equipment is no longer in use, but will be sold for more than its book value		✓
Newly purchased assets for which the company significantly overpaid, and which have costs that will not be recovered from future cash flows	✓	
Actions of competitors have forced McMahan to permanently lower prices, and certain items of equipment continue to be used at full capacity, even though the resulting production is unprofitable and will not recover cost	✓	
The maintenance department failed to properly lubricate the bearings on a crane, and it is now significantly damaged	✓	

The production rate during the 3rd year is 20% of the expected total production (based on a run rate of "60/(100 + 80 + 60 + 40 + 20)"). Therefore, depletion would be 20% of the depletable base. The depletion is calculated as follows:

Total cost	2,500,000
Portion represented by natural resource	X 0.8
Total natural resource cost	2,000,000
Less: Residual value (\$1,000,000 - \$250,000)	750,000
Depletable base	1,250,000
Portion attributable to Year 3	X 0.2
Year 3 depletion	250,000

Note that the equipment cost would be depreciated separately.

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
Year 3	Depletion Expense (or COGS)	250,000	
	Oil Well		250,000
	<i>To record depletion of oil well</i>		

This is an excellent opportunity to begin to introduce the idea that costs like depletion (and depreciation/amortization) may be allocated to cost of goods sold, rather than merely appearing as a "separate line item" on the income statement. It is not uncommon for students to fail to make this connection, and you can now start to help them begin to understand costing concepts that are introduced in the managerial accounting chapters that follow.

Amortization of intangibles

B-11.07

Research and development costs are expensed as incurred, and no further amortization is necessary. The goodwill is not amortized.

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
31-Dec	Amortization Expense	6,000	
	Patent		6,000
	<i>To record amortization of patent cost over 5-year life (\$30,000/5)</i>		
31-Dec	Loss on Impairment	10,000	
	Copyright		10,000
	<i>To record copyright becoming worthless</i>		

Involved Solutions

I-11.01

Costs subsequent to acquisition and revised depreciation

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
1-Jan	Accumulated Depreciation		10,000	
	Cash			10,000
	<i>To record significant overhaul of existing truck</i>			
1-Jul	Ventilation Equipment		65,000	
	Cash			65,000
	<i>To record addition of dust handling unit</i>			
Nov/Dec	Maintenance Expense		3,000	
	Cash			3,000
	<i>To record routine maintenance costs</i>			
20XX	Land Easement		10,000	
	Cash			10,000
	<i>To record acquisition of land easement</i>			

Item A

Original cost (annual depreciation @ \$15,000 per year)	\$ 90,000
Accumulated depreciation at beginning of year (2 years)	<u>(30,000)</u>
Beginning net book value	\$ 60,000
Expenditure to reduce accumulated depreciation	<u>10,000</u>
Revised net book value	\$ 70,000
Revised remaining life (6 years - 2 years + 3 years)	<u>÷ 7 years</u>
Depreciation expense	<u>\$ 10,000</u>

Item B

Original cost	\$ 240,000
Accumulated depreciation at beginning of year	<u>(100,000)</u>
Beginning of year net book value	\$ 140,000
Remaining life (6.5 years + first half of year)	<u>÷ 7 years</u>
Depreciation expense on original heating system	\$ 20,000
Cost of dust handler	\$ 65,000
Life (6.5 years)	<u>÷ 6.5 years</u>
Annual depreciation expense on dust handler	\$ 10,000
Portion of year in use	<u>X 1/2 year</u>
Depreciation expense on dust handler	\$ 5,000
Total depreciation expense on heating/dust handler ($\$20,000 + \$5,000$)	<u>\$ 25,000</u>

Item C

Beginning net book value	\$ 300,000
Remaining life (3 years)	<u>÷ 3 years</u>
Depreciation expense	<u>\$ 100,000</u>

The maintenance expense does not impact the book value or depreciation.

Item D

The land easement cost is not depreciated, given its perpetual existence.

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
	Cash		3,000,000	
	Accumulated Depreciation		1,000,000	
	Gain on Sale			1,500,000
	Asset A			2,500,000
	<i>To record sale of Asset A</i>			
	Cash		700,000	
	Accumulated Depreciation		100,000	
	Asset B			800,000
	<i>To record sale of Asset B</i>			
	Cash		4,000,000	
	Accumulated Depreciation		500,000	
	Loss on Sale		100,000	
	Asset C			4,600,000
	<i>To record sale of Asset C</i>			
	Cash		1,250,000	
	Accumulated Depreciation		1,250,000	
	Loss on Sale		750,000	
	Asset D			3,250,000
	<i>To record sale of Asset D</i>			

- | | |
|--|---------|
| (a) Largest gain (\$1,500,000) | Asset A |
| (b) Largest loss (\$750,000) | Asset D |
| (c) Highest depreciation to avoid (\$4,100,000) | Asset C |
| (d) Largest immediate cash flow (\$4,000,000) | Asset C |
| (e) Largest addition to total assets (\$1,500,000) | Asset A |
| (f) No change in assets | Asset B |

Various exchange scenarios

I-11.03

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
	Equipment (new)	5,000	
	Accumulated Depreciation	6,500	
	Gain		1,500
	Equipment (old)		10,000
	<i>To record exchange of sink</i>		
	Equipment (new)	10,000	
	Accumulated Depreciation	8,000	
	Loss	2,000	
	Equipment (old)		20,000
	<i>To record exchange of table</i>		
	Equipment (new)	20,000	
	Accumulated Depreciation	10,000	
	Gain		3,000
	Cash		15,000
	Equipment (old)		12,000
	<i>To record exchange of refrigerator</i>		
	Equipment (new)	17,000	
	Accumulated Depreciation	4,000	
	Loss	8,000	
	Cash		11,000
	Equipment (old)		18,000
	<i>To record exchange of freezer</i>		

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
	Equipment (new)	5,000	
	Accumulated Depreciation	6,000	
	Cash	1,000	
	Gain		4,500
	Equipment (old)		7,500
	<i>To record exchange of computer</i>		
	Equipment (new)	3,000	
	Accumulated Depreciation	2,000	
	Cash	2,000	
	Loss	2,000	
	Equipment (old)		9,000
	<i>To record exchange of fire system</i>		
	Equipment (new)	10,000	
	Accumulated Depreciation	2,500	
	Equipment (old)		12,500
	<i>To record exchange of oven</i>		

Natural resource depletion, depreciation, and change in estimate

I-11.04

Preliminary depletion calculation:

Purchase price	\$100,000,000
Restoration cost	<u>25,000,000</u>
Depletable base	\$125,000,000
Estimated tons	÷ 250,000
Depletion per ton	<u>\$ 500</u>

Depreciation calculations:

Digging equipment:		
Cost	\$ 5,000,000	
Useful life	÷ 10 years	
Annual depreciation		\$500,000
Hauling equipment:		
Cost	\$ 10,000,000	
Less: Salvage value	<u>2,000,000</u>	
	\$ 8,000,000	
Useful life	÷ 20 years	
Annual depreciation		<u>400,000</u>
Total annual depreciation		<u>\$900,000</u>

Annual income calculations:

	Revenues (\$1,000 per ton)	Labor and Operating (.3 X revenue)	Depreciation	Depletion (\$500 per ton)	Annual Income
Year 1	\$25,000,000	\$ 7,500,000	\$900,000	\$12,500,000	\$4,100,000
Year 2	20,000,000	6,000,000	900,000	10,000,000	3,100,000
Year 3	30,000,000	9,000,000	900,000	15,000,000	5,100,000
Year 4	25,000,000	7,500,000	900,000	12,500,000	4,100,000
Year 5	25,000,000	7,500,000	900,000	12,500,000	4,100,000
Year 6	35,000,000	10,500,000	900,000	17,500,000	6,100,000
Year 7	15,000,000	4,500,000	900,000	7,500,000	2,100,000
Year 8	25,000,000	7,500,000	900,000	12,500,000	4,100,000
Year 9	25,000,000	7,500,000	900,000	12,500,000	4,100,000
Year 10	25,000,000	7,500,000	900,000	12,500,000	4,100,000

(a)

Year 6 is the highest income, and Year 7 is the lowest income. As a percentage of revenue, notice that the \$900,000 straight-line depreciation is a much greater burden in the low volume year, and vice versa. Units of output depreciation would have allocated the depreciation in proportion to revenues, and would somewhat dampen the observed volatility in income.

(b)

It is important to note that all depletion is not immediately an expense. With the revised assumption, Year 5's depletion of \$12,500,000 would be allocated between cost of goods sold (\$10,000,000 or 80%) and inventory (\$2,500,000 or 20%).

(c)

As of the beginning of the ninth year, the remaining depletable base is \$25,000,000 (\$125,000,000 - \$100,000,000 prior depletion). This cost would be allocated over the remaining expected units of 100,000 tons (250,000 original estimate - 200,000 extracted + 50,000 new find). Thus, the revised depletion would be \$250 per ton (\$25,000,000/100,000 tons).

Accounting for various intangibles; amortization and impairment

I-11.05

GENERAL JOURNAL

Date	Accounts	Debit	Credit
1-Jan	Patent	80,000	
	Cash		80,000
	<i>To record registration of patent</i>		
31-Dec	Amortization Expense	4,000	
	Patent		4,000
	<i>To record amortization of patent over 20-year legal life</i>		

1-Jul	R&D Expense	125,000	
	Cash		125,000
	<i>To record research and development costs</i>		

1-Oct	Trademark/Brand	500,000	
	Cash		500,000
	<i>To record cost of acquiring trademarked brand name</i>		

1-Oct	Copyright	90,000	
	Cash		90,000
	<i>To record cost of buying copyright</i>		
31-Dec	Amortization Expense	7,500	
	Copyright		7,500
	<i>Record 3 months of amortization (3-year economic life) $(\\$90,000/3 \text{ years}) \times (3/12) = \\$7,500$</i>		

31-Dec	Impairment Loss	1,000,000	
	Goodwill		1,000,000
	<i>To impair goodwill</i>		

The solution to this problem will vary based on the specific companies examined by the students. Generally, the students will identify that U.S. GAAP and companies expense R&D as incurred. International standards will result in capitalization of many development costs. This difference in standards is likely to disappear as the FASB and IASB move forward with global convergence activities.

Chapter 12 Solutions

Basic Solutions

Contemplating the current liability definition

B-12.01

<i>Condition:</i>		<i>Other Conditions to meet:</i>
A	Obligation is due within one year	C, D, or E
B	Obligation is due within the operating cycle	C, D, or E
C	Obligation requires the use of current assets	A or B (the longer of)
D	Obligation results in the creation of another current liability	A or B (the longer of)
E	Obligation to be satisfied by providing services	A or B (the longer of)

Liabilities**Current liabilities**

Accounts payable	\$140,000	
Utilities payable	55,000	
Unearned revenue	375,000	
Sales tax payable	5,000	
Interest payable	3,750	
Current portion of loan payable	<u>500,000</u>	\$1,078,750

Supporting calculations:

Accounts payable ($\$100,000 + \$650,000 - \$610,000 = \$140,000$)

Interest payable ($\$1,500,000 \times 6\% \times 15/360 = \$3,750$)

Accounting for notes payable

B-12.03

(a), (b), (c)

GENERAL JOURNAL

Date	Accounts	Debit	Credit
1-Oct	Equipment	25,000	
	Cash		5,000
	Note Payable		20,000
	<i>To record purchase of equipment for cash and 10% note payable</i>		
31-Dec	Interest Expense	500	
	Interest Payable		500
	<i>To record accrued interest for 3 months (\$20,000 X 10% X 3/12)</i>		
30-Sep	Interest Expense	1,500	
	Interest Payable	500	
	Note Payable	20,000	
	Cash		22,000
	<i>To record repayment of note and interest (\$20,000 X 10%)</i>		

(a), (b), (c)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
1-Apr	Equipment		88,000	
	Discount on Note Payable		12,000	
	Note Payable			100,000
	<i>To record note payable, issued at a discount</i>			
31-Dec	Interest Expense		9,000	
	Discount on Note Payable			9,000
	<i>To record discount amortization for 9 months</i>			
31-Mar	Interest Expense		3,000	
	Note Payable		100,000	
	Discount on Note Payable			3,000
	Cash			100,000
	<i>To record discount amortization and repayment of note</i>			

(d) The actual interest rate is about 13.6% ($\$12,000/\$88,000$).

The corrections are noted below in red:

The first loan was a one-year loan for \$100,000, created on November 1 of the current year. It bears interest at 8%, with interest based on the "rule of 78s."

Calculations:

$$\$100,000 \times 8\% \times 2/12 = \$1,333.33$$

$$\$100,000 \times 8\% \times (12/78 + 11/78) = \$2,358.97$$

The second loan is due on demand and was for \$250,000. The loan was originated on November 1 of the current year, and it bears interest at 9%, using a 360-day year assumption.

Calculations:

$$\$250,000 \times 9\% \times 2/12 = \$3,750.00$$

$$\$250,000 \times 9\% \times 61/360 = \$3,812.50$$

The financial statement implications of the above corrections are that both interest expense and interest payable would increase. The "rule of 78s" results in allocating the total interest more to earlier periods and less to later periods. The 360-day year assumption results in a slightly increased amount of calculated interest for periods of less than one year.

- (a) A contingent liability is a potential liability. The eventual outcome is uncertain.
- (b) Accounting criteria for contingent liabilities generally follow this scheme:
- If the likelihood of an unfavorable outcome is remote, no disclosure is required.
- If the likelihood of an unfavorable outcome is reasonably possible, footnote disclosure is in order.
- If the likelihood of an unfavorable outcome is probable, and the amount of the liability can be reasonably estimated, then accrual of the loss/liability is appropriate.
- (c) It appears that footnote disclosure of the lawsuit is warranted (assuming that the amount is material to the company).


Warranty obligations

B-12.07

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
	Warranty Expense	400,000	
	Warranty Liability		400,000
	<i>To accrue additional warranty costs (50,000 units X 10% X \$80)</i>		
	Warranty Liability	310,000	
	Cash		310,000
	<i>To record actual warranty expenditures</i>		

The warranty expense in the income statement is \$400,000, and the closing warranty liability balance is \$340,000 (\$250,000 beginning balance + \$400,000 additional accrual - \$310,000 work performed).

(a)

BAYLOR HEALTH Payroll Account	Check # 95859	Date: <u>June 30, 20XX</u>
Pay to the order of: _____	Lawrence Bodine	\$1,566. ²⁰
*****ONE-THOUSAND, FIVE-HUNDRED, SIXTY-SIX AND 20/100 DOLLARS*****		
		
MEMO	June payroll for Bodine	<i>Judy Baylor</i>
Detach below before depositing, and save for your records.		
Employee: L. Bodine Pay period: June 20XX	Gross Earnings Deductions: Federal Income Tax Social Security Tax Medicare/Medicaid Tax Insurance Retirement Savings Plan Charity Net Pay	\$2,430.00 <u>863.80</u> \$1,566.20

Supporting calculations:

Gross earnings: $(180 \text{ hours} @ \$12 + 15 \text{ hours} @ \$18) = \$2,430$ Social security: $(\$2,430 @ 6.5\%) = \157.95 Medicare/Medicaid: $(\$2,430 @ 1.5\%) = \36.45 Retirement savings: $(\$2,430 @ 8\%) = \194.40

(b)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
30-Jun	Wages Expense	2,430.00	
	Federal Income Tax Payable		400.00
	Social Security Tax Payable		157.95
	Medicare/Medicaid Tax Payable		36.45
	Insurance Payable		50.00
	Retirement Plan Payable		194.40
	Community Chest Payable		25.00
	Cash		1,566.20
	<i>To record payroll of Bodine</i>		
30-Jun	Payroll Tax Expense	234.40	
	Employee Benefits Expense	693.00	
	Social Security Tax Payable		157.95
	Medicare/Medicaid Tax Payable		36.45
	Workers' Comp Ins. Payable (4%)		97.20
	Insurance Payable		450.00
	Retirement Plan Payable (75% of \$194.40)		145.80
	FUTA Payable (0.5% X \$2,000)		10.00
	SUTA Payable (1.5% X \$2,000)		30.00
	<i>To record employer portion of payroll taxes and benefits</i>		

(c)

The total cost for Lawrence is \$3,357.40 (\$2,430.00 + \$234.40 + \$693.00)

Each of Wilson's comments was wrong. Following is an evaluation of the incorrect statements:

Wilson	"The company is a fraud! It has a defined contribution plan for its employees and does not list the pension assets and liabilities on its books! Sell, sell, sell!"
Correction	With a defined contribution plan, the employer's obligation is determined and fixed. Periodic payments into a trust accrue to the benefit of employees. There is normally no residual asset or liability to be reported by the company.
Wilson	"You have to love this company. They are very conservative. They even accrue a liability for health insurance coverage relating to future retirees. Nobody does that! This company's real earnings are much higher than they are letting on. Buy, buy, buy!"
Correction	Most companies offering post retirement benefits for health care must expense the associated costs over service periods leading up to the date of benefit vesting. These expenses will be reported as a liability on the books prior to actual funding.
Wilson	"Well, it's true that peoples' feet are growing larger, so maybe this a good play. But, beware because the company is not accruing costs related to employee sick leave. They offer some lame excuse about not meeting all four criteria of an applicable accounting rule. Wrong, you only need to meet one of the criteria! Sell, sell, sell!"
Correction	Accruing such costs depends upon the satisfaction of all four conditions: (1) relates to services already rendered, (2) is a right that vests or accumulates, (3) is probable to be paid to the employee, and (4) can be reasonably estimated. Some costs will meet these conditions and some will not. Apparently, sick leave for this company did not meet all four criteria.
Wilson	"Buy! The company offers employees a defined benefit pension plan. The pension trust is loaded with loot, yet the company continues to show a pension liability on its books. It's a hidden asset."
Correction	Although the plan may have lots of assets, it apparently has liabilities in excess of those assets. When that condition is present, an additional pension obligation falls onto the company's balance sheet.

Involved Solutions

Recording and reporting for typical current liabilities

I-12.01

(a)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
1-May	Cash	100,000	
	Note Payable		100,000
	<i>Record note payable</i>		
10-May	Purchases (or Inventory)	24,500	
	Accounts Payable		24,500
	<i>Record purchase, net of discount</i>		
20-May	Cash	80,000	
	Warranty Expense	1,600	
	Sales		80,000
	Warranty Obligation		1,600
	<i>Record sale and warranty cost</i>		
25-May	Loss	10,000	
	Estimated Liability for Accident		10,000
	<i>Record estimated cost of accident</i>		

(b)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
31-May	Wages Expense	13,000	
	Wages Payable		13,000
	<i>Record accrued wages</i>		
31-May	Warranty Obligation	400	
	Cash		400
	<i>Record warranty work performed</i>		
31-May	Interest Expense	1,000	
	Interest Payable		1,000
	<i>Accrue 1% interest on note</i>		
31-May	Discount Lost (or Inventory)	500	
	Accounts Payable		500
	<i>Lapse of available discount</i>		
31-May	Employee Insurance Expense	1,500	
	Insurance Liability		1,500
	<i>Accrue 15 days of insurance cost</i>		

(c)

Liabilities**Current liabilities**

Notes payable	\$100,000	
Accounts payable	25,000	
Interest payable	1,000	
Wages payable	13,000	
Employee health insurance liability	1,500	
Warranty obligation	1,200	
Estimated liability for accident	<u>10,000</u>	\$151,700

Various notes payable transactions

I-12.02

(a)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
1-Jun	Furniture	500,000	
	Note Payable		500,000
	<i>Record note payable, 8%</i>		
1-Jul	Cash	90,000	
	Discount on Note Payable	10,000	
	Note Payable		100,000
	<i>Record one-year note payable</i>		
1-Oct	Accounts Payable	40,000	
	Note Payable		40,000
	<i>Record note payable, 8%</i>		
31-Oct	Note Payable	40,000	
	Interest Expense	492	
	Cash		40,492
	<i>Record note payoff ($\\$40,000 \times 8\% \times 12/78 = \\492)</i>		
1-Nov	Cash	75,000	
	Note Payable		75,000
	<i>Record 6% note payable</i>		
1-Dec	Note Payable	500,000	
	Interest Expense	20,000	
	Cash		520,000
	<i>Record note payoff ($\\$500,000 \times 8\% \times 6/12 = \\$20,000$)</i>		

(b)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
31-Dec	Interest Expense	5,000	
	Discount on Note Payable		5,000
	<i>To amortize discount on note</i>		
31-Dec	Interest Expense	752	
	Interest Payable		752
	<i>To accrue interest ($\\$75,000 \times 6\% \times 61/365 = \\752)</i>		

I-12.03

The company is subject to several lawsuits by plaintiffs. These claims assert that the camouflage is so effective that opposing paintballers come into too close of a range, and are therefore hurt by high-velocity, close-up shots. The company's attorney views the likelihood of any adverse judgment as highly remote. Further, the company generally has seen increased sales because of publicity associated with these claims.

Remote contingencies are not required to be disclosed. It is not necessary to report this circumstance.

The company manufactures a face shield that has been prone to crack. As a result, several serious injuries have been reported. The company is generally willing to settle each documented claim for \$20,000. Currently, it is estimate that 45 such claims will be submitted and settled.

It is probable that this contingency will result in a \$900,000 estimated settlement ($\$20,000 \times 45$). The company should record a loss and establish a corresponding liability on the balance sheet. As payments occur, the liability will be reduced accordingly.

The company has issued a full product recall of the defective face shields, and expects to spend \$700,000 on issuing replacement shields. The new shields will not be distributed until the next fiscal year.

It is probable that this contingency will result in a \$700,000 estimated cost. The company should record a loss and establish a corresponding liability on the balance sheet. This obligation exists as of the end of the year, even though action to solve the problem will not occur until the next accounting period. As replacement shields are issued, the liability will be reduced accordingly.

The company has been notified by a competitor that one of Camo Max's camouflage designs violates a copyright held by the competitor. The competitor is asking for a \$250,000 paid up license to the use the design. Camo Max disagrees, but believes that it is reasonably possible the competitor will file a copyright infringement action.

It is reasonably possible, but not probable, that this contingency will become an actual liability. Furthermore, it is not possible to currently estimate any final obligation that could result. Accordingly, the company should footnote this situation.

Subsequent to year end (but before preparing financial statements), an employee was seriously injured by a fabric cutting machine. The company has agreed to a large financial settlement with the employee. This payment will eliminate any hope of profitability during the next several years.

Because this event arose subsequent to year end, it did not impact the financial statements, and no adjustment of the accounts is necessary. However, footnote disclosure is in order, because it is a material adverse event occurring after year end.

Payroll records and entries

I-12.04

(a)

Deductions

Name	Gross Earnings	Federal Income Tax	Social Security Tax	Medicare/Medicaid	Charitable	Health Insurance	Net Earnings
Breschi, K	\$ 1,140.00	\$ 200.00	\$ 74.10	\$ 17.10	\$10.00	\$ 250.00	\$ 588.80
Carballo, P	3,000.00	850.00	195.00	45.00	10.00	250.00	1,650.00
Dangelo, J	2,520.00	625.00	163.80	37.80	10.00	250.00	1,433.40
Gaines, T	4,500.00	1,100.00	292.50	67.50	10.00	250.00	2,780.00
Goseco, M	10,100.00	3,575.00	591.50	151.50	10.00	250.00	5,522.00
Skolnick, J	2,160.00	480.00	140.40	32.40	10.00	250.00	1,247.20
Williams, R	1,548.00	140.00	100.62	23.22	10.00	250.00	1,024.16
Wong, O	3,240.00	800.00	210.60	48.60	10.00	250.00	1,920.80
Totals	\$28,208.00	\$7,770.00	\$1,768.52	\$423.12	\$80.00	\$2,000.00	\$16,166.36

(b)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
31-Oct	Wages Expense	28,208.00	
	Federal Income Tax Payable		7,770.00
	Social Security Tax Payable		1,768.52
	Medicare/Medicaid Tax Payable		423.12
	Charity payable		80.00
	Insurance Payable		2,000.00
	Cash		16,166.36
	<i>To record payroll</i>		
31-Oct	Payroll Tax Expense	2,214.44	
	Employee Benefits Expense	1,974.56	
	Social Security Tax Payable		1,768.52
	Medicare/Medicaid Tax Payable		423.12
	Workers' Comp Ins. Payable (2%)		564.16
	FUTA Payable (0.5% X \$1,140)		5.70
	SUTA Payable (1.5% X \$1,140)		17.10
	Retirement Plan Payable (5%)		1,410.40
	<i>To record employer portion of payroll taxes and benefits</i>		

I-12.05*Team-based approach for retirement plans/other post-employment benefits*

Each team should complete the blank worksheet summarizing the companies examined. Review the results with the class, noting in particular the significant trend away from defined benefit plans in lieu of defined contribution plans.

Chapter 13 Solutions

Basic Solutions

Basic accounting for long-term note payable

B-13.01

(a), (b), (c), (d), (e)

GENERAL JOURNAL

Date	Accounts	Debit	Credit
04-01-X4	Land	500,000	
	Cash		100,000
	Note Payable		400,000
	<i>To record purchase of land for cash and 10% note payable</i>		
12-31-X4	Interest Expense	30,000	
	Interest Payable		30,000
	<i>To record accrued interest for 9 months (\$400,000 X 10% X 9/12)</i>		
03-31-X5	Interest Expense	10,000	
	Interest Payable	30,000	
	Note Payable	100,000	
	Cash		140,000
	<i>To record repayment of note and interest (\$400,000 X 10% X 3/12)</i>		
12-31-X5	Interest Expense	22,500	
	Interest Payable		22,500
	<i>To record accrued interest for 9 months (\$300,000 X 10% X 9/12)</i>		
03-31-X6	Interest Expense	7,500	
	Interest Payable	22,500	
	Note Payable	100,000	
	Cash		130,000
	<i>To record repayment of note and interest (\$300,000 X 10% X 3/12)</i>		

- (a) 7% interest, and 6 periods:

$$\begin{aligned} \$10,000 \times (1.07)^6 &= \\ \$15,007.30 & \end{aligned}$$

- (b) 7% interest, and 6 periods:

The future value factor from the table is 1.50073

$$\$10,000 \times 1.50073 = \$15,007.30$$

- (c)

Year of Investment	Future Value Factor From Table	Payment	Value of Payment at end of 6th Year
1 (amount will be invested 6 years)	1.50073	\$10,000	\$15,007.30
2 (amount will be invested 5 years)	1.40255	\$10,000	14,025.50
3 (amount will be invested 4 years)	1.31080	\$10,000	13,108.00
4 (amount will be invested 3 years)	1.22504	\$10,000	12,250.40
5 (amount will be invested 2 years)	1.14490	\$10,000	11,449.00
6 (amount will be invested 1 year)	1.07000	\$10,000	<u>10,700.00</u>
			<u>\$76,540.20</u>

- (d) 7% interest, and 6 periods:

The future value factor from the annuity table is 7.65402

$$\$10,000 \times 7.65402 = \$76,540.20$$

(a) 6% interest, and 4 periods:

$$\begin{aligned} \$25,000 \times 1/(1.06)^4 &= \\ & \$19,802.34 \end{aligned}$$

(b) 6% interest, and 4 periods:

The present value factor from the table is 0.79209

$$\$25,000 \times 0.79209 = \$19,802.25$$

(c)

Year	Present Value Factor From Table	Payment	Value of Payment at beginning of 1st Year
1 (amount will be received in 1 year)	0.94340	\$25,000	\$23,585.00
2 (amount will be received in 2 years)	0.89000	\$25,000	22,250.00
3 (amount will be received in 3 years)	0.83962	\$25,000	20,990.50
4 (amount will be received in 4 years)	0.79209	\$25,000	<u>19,802.25</u>
			<u>\$86,627.75</u>

(d) 6% interest, and 4 periods:

The present value factor from the annuity table is

$$\$25,000 \times 3.46511 = \$86,627.75$$

(a)

$$\begin{aligned} \text{Loan Amount} &= \text{Payments} \times \text{Annuity Present Value Factor} \\ \$500,000 &= \text{Payments} \times \text{Annuity Present Value Factor (2 periods @ 9\%)} \\ \$500,000 &= \text{Payments} \times 1.75911 \\ \$500,000/1.75911 &= \text{Payments} \\ \text{Payments} &= \$284,234.60 \end{aligned}$$

(b)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
1-Jan	Building		500,000.00	
	Note Payable			500,000.00
	<i>To record purchase of office building for 9% note payable</i>			
31-Dec	Interest Expense		45,000.00	
	Note Payable		239,234.60	
	Cash			284,234.60
	<i>To record payment (\$500,000 X 9% = \$45,000)</i>			
31-Dec	Interest Expense		23,469.20	
	Note Payable		260,765.40	
	Cash			284,234.60
	<i>To record payment ((\$500,000 - \$239,234.60) X 9% = \$23,469.20)</i>			

(c)

$$\begin{aligned} \text{Loan Amount} &= \text{Payments} \times \text{Annuity Present Value Factor} \\ \$500,000 &= \text{Payments} \times \text{Annuity Present Value Factor (24 periods @ 0.75\%)} \\ \$500,000 &= \text{Payments} \times 21.88915 \\ \$500,000/21.88915 &= \text{Payments} \\ \text{Payments} &= \$22,842.37 \end{aligned}$$

The specific terms of a bond issue are specified in a bond debenture indenture. Secured Debenture bonds are backed up only by the general faith and credit of the issuer. Computerization has resulted in the virtual elimination of registered coupon bonds. Serial Sinking fund bonds must be matched with funds set aside in a fund to provide for the eventual retirement of the issue. Callable Convertible bonds can be exchanged for common stock of the issuer. Low-yield High-yield bonds of distressed firms are frequently called junk bonds. Bonds will sell at a premium discount when the effective rate is above the stated rate. (OR -- Bonds will sell at a premium when the effective rate is above below the stated rate.)

(a), (b), (c)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
Issue	Cash		100,000	
	Bonds Payable			100,000
	<i>To record the issuance of \$100,000, 8%, 5-year bonds at par -- interest payable semiannually</i>			
Interest	Interest Expense		4,000	
	Cash			4,000
	<i>To record an interest payment (\$100,000 par X .08 interest X 6/12 months)</i>			
Maturity	Bonds Payable		100,000	
	Cash			100,000
	<i>To record the redemption of bond investment at maturity</i>			

(d)

Total cash inflow was \$100,000, and total cash outflow was \$140,000 ($\$4,000 \times 10$ periods) + \$100,000). The \$40,000 difference is equivalent to the interest expense that would be recognized over time ($\$4,000 \times 10$ periods).

Bonds at a premium, straight-line amortization

B-13.07

(a), (b), (c)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
Issue	Cash	103,000	
	Premium on Bonds Payable		3,000
	Bonds Payable		100,000
	<i>To record the issuance of \$100,000, 8%, 6-year bonds at 103 -- interest semiannually</i>		
Interest	Interest Expense	3,750	
	Premium on Bonds Payable	250	
	Cash		4,000
	<i>To record an interest payment (\$100,000 par X .08 interest X 6/12 months = \$4,000; \$3,000 premium X 6/72 months = \$250 amortization)</i>		
Maturity	Bonds Payable	100,000	
	Cash		100,000
	<i>To record the redemption of bond issue at maturity</i>		

(d)

Total cash inflow was \$103,000, and total cash outflow was \$148,000 ($(\$4,000 \times 12 \text{ periods}) + \$100,000$). The \$45,000 difference is equivalent to the interest expense that would be recognized over time ($\$3,750 \times 12 \text{ periods}$).

(a), (b), (c)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
Issue	Cash	98,000	
	Discount on Bonds Payable	2,000	
	Bonds Payable		100,000
	<i>To record the issuance of \$100,000, 8%, 4-year bonds at 98 – interest semiannually</i>		
Interest	Interest Expense	4,250	
	Discount on Bonds Payable		250
	Cash		4,000
	<i>To record an interest payment (\$100,000 par X .08 interest X 6/12 months = \$4,000; \$2,000 discount X 6/48 months = \$250 amortization)</i>		
Maturity	Bonds Payable	100,000	
	Cash		100,000
	<i>To record the redemption of bond issue at maturity</i>		

(d)

Total cash inflow was \$98,000, and total cash outflow was \$132,000 ($\$4,000 \times 8$ periods) + \$100,000). The \$34,000 difference is equivalent to the interest expense that would be recognized over time ($\$4,250 \times 8$ periods).

Bonds at a premium, effective-interest amortization

B-13.09

(a)

Periodic interest payments ($\$5,000,000 \times 3.5\%$)		\$ 175,000	
Present value factor (10-period annuity, 3%)	X	<u>8.53020</u>	\$1,492,785
Maturity value		\$5,000,000	
Present value factor (10 periods, 3%)	X	<u>0.74409</u>	<u>\$3,720,450</u>
Issue price of bond			<u>\$5,213,235</u>

(b)

GENERAL JOURNAL				
Date	Accounts	Debit	Credit	
1-Jan	Cash	5,213,235		
	Premium on Bonds Payable		213,235	
	Bonds Payable		5,000,000	
	<i>To record the issuance of \$5,000,000, 7%, 5-year bonds at \$5,213,235</i>			
30-Jun	Interest Expense	156,397		
	Premium on Bonds Payable	18,603		
	Cash		175,000	
	<i>To record payment of interest ($\\$5,000,000 \times .035 = \\$175,000$; $\\$5,213,235 \times .03 = \\$156,397$)</i>			
31-Dec	Interest Expense	155,839		
	Premium on Bonds Payable	19,161		
	Cash		175,000	
	<i>To record payment of interest ($\\$5,000,000 \times .035 = \\$175,000$; $(\\$5,213,235 - \\$18,603) \times .03 = \\$155,839$)</i>			

(c)

Bonds payable	\$5,000,000	
Plus: Premium on bonds payable	<u>175,471</u>	\$5,175,471

B-13.10

Bonds at a discount, effective-interest amortization

(a)

Periodic interest payments ($\$5,000,000 \times 2.5\%$)		\$ 125,000	
Present value factor (10-period annuity, 3%)	X	<u>8.53020</u>	\$1,066,275
Maturity value		\$5,000,000	
Present value factor (10 periods, 3%)	X	<u>0.74409</u>	<u>\$3,720,450</u>
Issue price of bond			<u>\$4,786,725</u>

(b)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
1-Jan	Cash		4,786,725	
	Discount on Bonds Payable		213,275	
	Bonds Payable			5,000,000
	<i>To record the issuance of \$5,000,000, 5%, 5-year bonds at \$4,786,725</i>			
30-Jun	Interest Expense		143,602	
	Discount on Bonds Payable			18,602
	Cash			125,000
	<i>To record payment of interest ($\\$5,000,000 \times .025 = \\$125,000$; $\\$4,786,725 \times .03 = \\$143,602$)</i>			
31-Dec	Interest Expense		144,160	
	Discount on Bonds Payable			19,160
	Cash			125,000
	<i>To record payment of interest ($\\$5,000,000 \times .025 = \\$125,000$; $(\\$4,786,725 + \\$18,602) \times .03 = \\$144,160$)</i>			

(c)

Bonds payable		\$5,000,000	
Less: Discount on bonds payable		<u>175,513</u>	\$4,824,487

Bonds issued between interest dates

B-13.11

(a), (b), (c)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
1-Mar	Cash	1,015,000	
	Interest Payable		15,000
	Bonds Payable		1,000,000
	<i>To record issuance of bonds at par, plus accrued interest (\$1,000,000 X 9% X 2/12 = \$15,000)</i>		
30-Jun	Interest Expense	30,000	
	Interest Payable	15,000	
	Cash		45,000
	<i>To record the payment of interest (\$1,000,000 par X 9% X 6/12 months = \$45,000)</i>		
31-Dec	Interest Expense	45,000	
	Cash		45,000
	<i>To record the payment of interest (\$1,000,000 par X 9% X 6/12 months = \$45,000)</i>		

B-13.12

Basic bond retirement

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
31-Dec	Interest Expense		3,500	
	Cash			3,500
	<i>To record interest payment (\$100,000 X 7% X 6/12 months)</i>			
31-Dec	Bonds Payable		100,000	
	Gain on Bond Retirement			2,500
	Cash			97,500
	<i>To record retirement of bond</i>			

Debt analysis

B-13.13

(a)

	Total Assets	Total Liabilities	Total Debt/ Total Assets
A	\$10,000,000	\$ 1,000,000	0.10
B	20,000,000	3,000,000	0.15
D	15,000,000	6,000,000	0.40
C	6,000,000	4,000,000	0.67
E	30,000,000	22,000,000	0.73

(b)

	Total Assets	Total Liabilities	Total Equity (Assets - Liabilities)	Total Debt/ Total Equity
A	\$10,000,000	\$ 1,000,000	\$ 9,000,000	0.11
B	20,000,000	3,000,000	17,000,000	0.18
D	15,000,000	6,000,000	9,000,000	0.67
C	6,000,000	4,000,000	2,000,000	2.00
E	30,000,000	22,000,000	8,000,000	2.75

(c)

	Net Income	Income Before Tax (Net income/ 70%)	Interest Expense (Total Liabilities X 8%)	Income Before Tax and Interest	Income Before Interest and Tax/ Interest
B	\$1,000,000	\$ 1,428,571	\$ 240,000	\$1,668,571	6.95
D	1,600,000	2,285,714	480,000	2,765,714	5.76
A	200,000	285,714	80,000	365,714	4.57
E	4,000,000	5,714,286	1,760,000	7,474,286	4.25
C	250,000	357,143	320,000	677,143	2.12

(d)

Total debt is not necessarily the correct variable to evaluate when considering risk. The correct evaluation goes to an evaluation of the capacity to manage and fund the debt service. As a result, risk should be evaluated in terms of the relationships between debt and assets, debt and equity, and the ability of the income stream to service the debt. These evaluations, as shown in the problem, can produce alternative signals. Care must be taken in any ratio based evaluation.

B-13.14

(a), (b), (c), (d)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
(a)	Rent Expense		2,500	
	Cash			2,500
	<i>To record rent payment on operating lease</i>			
(b)	Equipment		112,388	
	Obligation Under Financing Lease			112,388
	<i>To record financing lease of office equipment</i>			
(c)	Interest Expense		1,124	
	Obligation Under Financing Lease		1,376	
	Cash			2,500
	<i>To record first lease payment (interest portion = \$112,388 X 1%)</i>			
	Interest Expense		1,110	
	Obligation Under Financing Lease		1,390	
	Cash			2,500
	<i>To record second lease payment (interest portion = (\$112,388 - \$1,376) X 1%)</i>			
(d)	Depreciation Expense		1,873	
	Accumulated Depreciation			1,873
	<i>To record depreciation of equipment (\$112,388/60 months)</i>			

(e)

The office equipment is recorded "as if" purchased with the proceeds of a loan. The office space appears as a periodic operating cost. The financial outcomes differ, although the "contracted" monthly payments are the same. Comment to your students on the importance of monitoring commitments.

Involved Solutions

Future value and present value calculations

I-13.01

- (a) How much will a lump sum of \$10,000, invested at 7% per annum, grow to in 20 years?

Reference to the Future Value of \$1 table:

$$\$10,000 \times 3.86968 = \$38,696.80$$

From Excel:

$$(\$38,696.84)$$

- (b) How much will be in account after 2 years, if \$50 is placed into the account at the beginning of each month? Assume the account's interest rate is 6%, with monthly compounding.

Reference to the Future Value of Annuity Due table:

$$\$50 \times 25.55912 = \$1,277.96$$

From Excel:

$$(\$1,277.96)$$

- (c) How much should be set aside today, so that it will grow to \$30,000 in 15 years? The discount rate is 9%.

Reference to the Present Value of \$1 table:

$$\$30,000 \times 0.27454 = \$8,236.20$$

From Excel:

$$(\$8,236.14)$$

- (d) What is the present worth of an income stream that includes annual end-of-period payments of \$100,000 for 20 years? Assume the appropriate discount rate is 8% per year.

Reference to the Present Value of Ordinary Annuity table:

$$\$100,000 \times 9.81815 = \$981,815$$

From Excel:

$$(\$981,814.74)$$

(a)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
1-Apr 20X3	Cash		1,000,000	
	Note Payable			1,000,000
	<i>To record proceeds of construction loan</i>			
31-Dec 20X3	Interest Expense		52,500	
	Interest Payable			52,500
	<i>To accrue interest (\$1,000,000 X 7% X 9/12 = \$52,500)</i>			
31-Mar 20X4	Interest Expense		17,500	
	Interest Payable		52,500	
	Cash			70,000
	<i>To record interest payment (\$1,000,000 X 7% = \$70,000)</i>			
31-Dec 20X4	Interest Expense		52,500	
	Interest Payable			52,500
	<i>To accrue interest (\$1,000,000 X 7% X 9/12 = \$52,500)</i>			
31-Mar 20X5	Interest Expense		17,500	
	Interest Payable		52,500	
	Note Payable		1,000,000	
	Cash			1,070,000
	<i>To record final payment of interest and principal</i>			

(b)

Loan Amount = Payments X Annuity Present Value Factor

\$1,200,000 = Payments X Annuity Present Value Factor (20 periods @ 1.50%)

\$1,200,000 = Payments X 17.16864

\$1,200,000/17.16864 = Payments

Payments = \$69,894.88

(c)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
1-Apr	Cash		1,200,000	
20X5	Note Payable			1,200,000
	<i>To record proceeds of equipment financing</i>			
30-Jun	Interest Expense		18,000	
20X5	Note Payable		51,895	
	Cash			69,895
	<i>To record payment (interest = \$1,200,000 X 1.5%)</i>			
30-Sep	Interest Expense		17,222	
20X5	Note Payable		52,673	
	Cash			69,895
	<i>To record payment (interest = (\$1,200,000 - \$51,895) X 1.5%)</i>			

(d)

Period	Beginning Balance	Interest (Beginning Balance X 1.5%)	Amount of Payment	Principal Reduction (payment minus interest)	Ending Balance
1	\$1,200,000.00	\$18,000.00	\$69,894.88	\$51,894.88	\$1,148,105.12
2	1,148,105.12	17,221.58	69,894.88	52,673.30	1,095,431.82
3	1,095,431.82	16,431.48	69,894.88	53,463.40	1,041,968.41
4	1,041,968.41	15,629.53	69,894.88	54,265.35	987,703.06
5	987,703.06	14,815.55	69,894.88	55,079.33	932,623.73
6	932,623.73	13,989.36	69,894.88	55,905.52	876,718.20
7	876,718.20	13,150.77	69,894.88	56,744.11	819,974.10
8	819,974.10	12,299.61	69,894.88	57,595.27	762,378.83
9	762,378.83	11,435.68	69,894.88	58,459.20	703,919.63
10	703,919.63	10,558.79	69,894.88	59,336.09	644,583.54
11	644,583.54	9,668.75	69,894.88	60,226.13	584,357.42
12	584,357.42	8,765.36	69,894.88	61,129.52	523,227.90
13	523,227.90	7,848.42	69,894.88	62,046.46	461,181.44
14	461,181.44	6,917.72	69,894.88	62,977.16	398,204.28
15	398,204.28	5,973.06	69,894.88	63,921.82	334,282.46
16	334,282.46	5,014.24	69,894.88	64,880.64	269,401.82
17	269,401.82	4,041.03	69,894.88	65,853.85	203,547.97
18	203,547.97	3,053.22	69,894.88	66,841.66	136,706.31
19	136,706.31	2,050.59	69,894.88	67,844.29	68,862.02
20	68,862.02	1,032.93	69,894.88	68,861.95	0.07

(a)

Period Ending	Beginning of Period Net Book Value of Bonds Payable	Interest Expense (Net Book Value X 5% X 6/12)	Amount of Payment	Premium Amortization (payment minus expense)	End of Period Net Book Value (beginning balance less amortization)
6-30-X2	\$2,102,578	\$52,564	\$60,000	\$7,436	\$2,095,142
12-31-X2	2,095,142	52,379	60,000	7,621	2,087,521
6-30-X3	2,087,521	52,188	60,000	7,812	2,079,709
12-31-X3	2,079,709	51,993	60,000	8,007	2,071,702
6-30-X4	2,071,702	51,793	60,000	8,207	2,063,494
12-31-X4	2,063,494	51,587	60,000	8,413	2,055,082
6-30-X5	2,055,082	51,377	60,000	8,623	2,046,459
12-31-X5	2,046,459	51,161	60,000	8,839	2,037,620
6-30-X6	2,037,620	50,941	60,000	9,059	2,028,561
12-31-X6	2,028,561	50,714	60,000	9,286	2,019,275
6-30-X7	2,019,275	50,482	60,000	9,518	2,009,757
12-31-X7	2,009,757	50,244	60,000	9,756	2,000,000

(b)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
1-Jan	Cash		2,102,578	
	Premium on Bonds Payable			102,578
	Bonds Payable			2,000,000
	<i>To record bond issuance</i>			
30-Jun	Interest Expense		52,564	
	Premium on Bonds Payable		7,436	
	Cash			60,000
	<i>To record first interest payment</i>			
31-Dec	Interest Expense		52,379	
	Premium on Bonds Payable		7,621	
	Cash			60,000
	<i>To record second interest payment</i>			

(c)

Bonds payable	\$2,000,000	
Plus: Unamortized premium on bonds payable	55,082	\$2,055,082

Bonds issued at a discount; effective interest

I-13.04

(a)

Period Ending	Beginning of Period Net Book Value of Bonds Payable	Interest Expense (Net Book Value X 7% X 6/12)	Amount of Payment	Discount Amortization (expense minus payment)	End of Period Net Book Value (beginning balance plus amortization)
6-30-X3	\$4,792,085	\$167,723	\$150,000	\$17,723	\$4,809,808
12-31-X3	4,809,808	168,343	150,000	18,343	4,828,151
6-30-X4	4,828,151	168,985	150,000	18,985	4,847,137
12-31-X4	4,847,137	169,650	150,000	19,650	4,866,786
6-30-X5	4,866,786	170,338	150,000	20,338	4,887,124
12-31-X5	4,887,124	171,049	150,000	21,049	4,908,173
6-30-X6	4,908,173	171,786	150,000	21,786	4,929,959
12-31-X6	4,929,959	172,549	150,000	22,549	4,952,508
6-30-X7	4,952,508	173,338	150,000	23,338	4,975,846
12-31-X7	4,975,846	174,155	150,000	24,155	5,000,000

(b)

GENERAL JOURNAL				
Date	Accounts	Debit	Credit	
1-Jan	Cash	4,792,085		
	Discount on Bonds Payable	207,915		
	Bonds Payable		5,000,000	
	<i>To record bond issuance</i>			
30-Jun	Interest Expense	167,723		
	Discount on Bonds Payable		17,723	
	Cash		150,000	
	<i>To record first interest payment</i>			
31-Dec	Interest Expense	168,343		
	Discount on Bonds Payable		18,343	
	Cash		150,000	
	<i>To record second interest payment</i>			

(c)

Bonds payable	\$5,000,000	
Less: Unamortized discount on bonds payable	(91,827)	\$4,908,173

Each team member will have unique calculations. The general principles showing that a discount results when the effective rate $>$ stated rate (and vice versa) should be emphasized. This general observation should be supported by specific calculations relating to each unique scenario.

(a)		
Initial carrying value of bonds		\$864,688
Effective interest rate	X	<u>0.04</u>
Effective interest cost		\$ 34,588
Less cash paid (3% X \$1,000,000)		<u>30,000</u>
Amortization for Jan. 1 to June 30, 20X5		\$ 4,588
Plus: Carrying value before periodic amortization		<u>864,688</u>
Revised carrying value as of June 30, 20X5		\$869,276
Effective interest rate	X	<u>0.04</u>
Effective interest cost		\$ 34,771
Less cash paid (3% X \$1,000,000)		<u>30,000</u>
Amortization for July 1 to Dec. 31, 20X5		\$ 4,771
Plus: Carrying value before periodic amortization		<u>869,276</u>
Revised carrying value as of Dec. 31, 20X5		\$874,047
Effective interest rate	X	<u>0.04</u>
Effective interest cost		\$ 34,962
Less cash paid (3% X \$1,000,000)		<u>30,000</u>
Amortization for Jan. 1 to June 30, 20X6		\$ 4,962
Plus: Carrying value before periodic amortization		<u>874,047</u>
Revised carrying value as of June 30, 20X6		\$879,008
Effective interest rate	X	<u>0.04</u>
Effective interest cost		\$ 35,160
Less cash paid (3% X \$1,000,000)		<u>30,000</u>
Amortization for July 1 to Dec. 31, 20X6		\$ 5,160
Plus: Carrying value before periodic amortization		<u>879,008</u>
Revised carrying value as of Dec. 31, 20X6		\$884,169

(b)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
31-Dec	Interest Expense		35,160	
	Discount on Bonds Payable			5,160
	Cash			30,000
	<i>To record interest payment</i>			
31-Dec	Bonds Payable		1,000,000	
	Loss on Bond Retirement		181,101	
	Discount on Bonds Payable			115,831
	Cash			1,065,270
	<i>To record retirement of bond (unamortized discount = \$1,000,000 - \$884,169)</i>			

(c)

Periodic interest payments (\$1,000,000 X 3%)		\$	30,000	
Present value factor (16-period annuity, 2.5%)	X	<u>13.05500</u>	\$	391,650
Maturity value		\$1,000,000		
Present value factor (16 periods, 2.5%)	X	<u>0.67362</u>	\$	<u>673,620</u>
Price of bond at 5%, 8 years to maturity				<u>\$1,065,270</u>

Chapter 14 Solutions

Basic Solutions

Corporate characteristics

B-14.01

	<u>Term</u>	<u>Advantage/Disadvantage</u>
The ability of a company to raise capital by issuing shares to the public	Publicly Traded	Advantage
The ability of an existing shareholder to sell shares without corporate approval	Transferability of Ownership	Advantage
The ability of the government to tax corporate earnings and dividends	Double Taxation	Disadvantage
Periodic regulatory filings	Cost of Regulation	Disadvantage
The ability of different individuals to pool resources	Mutual Ownership	Advantage
The inability of creditors to pursue individual shareholders	Limited Liability	Advantage
The life of the entity can exceed the life of the shareholders	Perpetual Existence	Advantage

	<u>Common</u>	<u>Preferred</u>
The stock is described as 6%, cumulative		✓
The stock includes voting rights	✓	
The stock is last in line in the event of liquidation	✓	
The stock is convertible		✓
The stock ordinarily pays a fixed dividend		✓
The stock may be subject to significant appreciation	✓	
The stock has a "call price"		✓
The stock has a mandatory redemption date		✓

Recording stock issues

B-14.03

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
(a)	Cash		3,000,000	
	Common Stock			100,000
	Pd. in Cap. in Excess of Par/CS			2,900,000
	<i>To record issue of 100,000 shares of \$1 par value common stock at \$30 per share</i>			
(b)	Cash		500,000	
	Common Stock			500,000
	<i>To record issue of 50,000 shares of no par value common stock at \$10 per share</i>			
(c)	Cash		4,080,000	
	Preferred Stock			4,000,000
	Pd. in Cap. in Excess of Par/PS			80,000
	<i>To record issue of 40,000 shares of \$100 par value preferred stock at \$102 per share</i>			
(d)	Land		75,000	
	Common Stock			25,000
	Pd. in Cap. in Excess of Par/CS			50,000
	<i>To record issue of 5,000 shares of \$5 par value common stock for land with a fair value of \$75,000</i>			

(a)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
Declare	Dividends	750,000	
Date	Dividends Payable		750,000
	<i>To record declaration of dividends</i>		
Record	No Entry		
Date			
Pay	Dividends Payable	750,000	
Date	Cash		750,000
	<i>To record payment of previously declared dividend</i>		

(b)

Net income is unaffected by the dividends. Dividends are a distribution, not an expense. Net income for 20X7 is \$2,500,000. Net income for 20X8 is \$3,000,000.

(c)

Total equity at December 31, 20X7 is \$6,750,000 (\$5,000,000 beginning balance + \$2,500,000 net income - \$750,000 dividends declared).

Total equity at December 31, 20X8 is \$9,750,000 (\$6,750,000 beginning balance + \$3,000,000 net income).

(d)

Working capital is reduced on the date of declaration via the addition of a current liability relating to dividends payable. No impact occurs on the date of record. On the date of payment, current assets (cash) and current liabilities (dividends payable) are both reduced by the same amount resulting in no change in working capital.

(a)

Legal capital: $(10,000,000 \times \$1 \text{ par}) + (1,000,000 \times \$50 \text{ par}) = \$60,000,000$

Additional paid-in capital: $(10,000,000 \times (\$7 \text{ issue price} - \$1 \text{ par})) = \$60,000,000$

Total paid-in capital: $(\$60,000,000 + \$60,000,000) = \$120,000,000$

(b)

Generally, a company would prepare a footnote to the financial statements indicating any dividends in arrears (in this case, $\$2,000,000 - 1,000,000 \times \$50 \times 4\%$). A liability would not be established prior to the actual declaration of a dividend; in other words, dividends in arrears are not a liability unless formally declared.

(c)

Of the $\$7,000,000$ in dividends, $\$4,000,000$ would be paid to preferred (the current and prior year amount at $\$2,000,000$ per year) and $\$3,000,000$ would be paid to common.

(a)

The original issue price was \$21,000,000 (\$3,500,000 + \$17,500,000) for 3,500,000 shares. This translates into \$6 per share (\$21,000,000/3,500,000). This is considerably lower than the reacquisition price of \$10 per share. However, the stock issuance may have occurred many years earlier (note that the company has built up substantial retained earnings), and the corporate value could now be much higher.

(b), (c), (d)

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
A	Treasury Stock	2,500,000	
	Cash		2,500,000
	<i>To record acquisition of 250,000 treasury shares at \$10 per share</i>		
B	Cash	2,125,000	
	Treasury Stock		1,250,000
	Paid-in Capital in Excess of Par		875,000
	<i>To record reissue of 125,000 treasury shares at \$17 per share</i>		
C	Cash	750,000	
	Paid-in Capital in Excess of Par	500,000	
	Treasury Stock		1,250,000
	<i>To record reissue of 125,000 treasury shares at \$6 per share</i>		

(e)

There is generally no impact on earnings related to treasury stock transactions. However, treasury stock is a contra equity account. In Transaction A, total equity declines by \$2,500,000. In Transaction B, total equity increases by \$2,125,000. In Transaction C, total equity increases by \$750,000.

Stock dividends and splits

B-14.07

(a)

Common stock, \$1 par, 2,000,000 shares authorized, 1,000,000 shares issued and outstanding	\$1,000,000
Paid-in capital in excess of par	2,000,000
Retained earnings	<u>6,000,000</u>
Total stockholders' equity	<u>\$9,000,000</u>

This display of equity reveals no change in equity amounts; instead, the par value is reduced from \$2 to \$1, and the number of shares issued and outstanding is doubled.

(b)

Common stock, \$2 par, 2,000,000 shares authorized, 575,000 shares issued and outstanding	\$1,150,000
Paid-in capital in excess of par	5,600,000
Retained earnings	<u>2,250,000</u>
Total stockholders' equity	<u>\$9,000,000</u>

This display of equity reveals that the number of shares is increased by 75,000 (15% X 500,000). The retained earnings is decreased by the fair value of the newly issued shares (75,000 X \$50 = \$3,750,000). The \$3,750,000 reduction in retained earnings is allocated back to common stock and additional paid-in capital.

(c)

Common stock, \$2 par, 2,000,000 shares authorized, 750,000 shares issued and outstanding	\$1,500,000
Paid-in capital in excess of par	2,000,000
Retained earnings	<u>5,500,000</u>
Total stockholders' equity	<u>\$9,000,000</u>

This display of equity reveals that the number of shares is increased by 250,000 (50% X 500,000). The retained earnings is decreased by the par value of the newly issued shares (250,000 X \$2 = \$500,000). The \$500,000 reduction in retained earnings is allocated back to common stock.

Note: Stockholders' equity is unchanged in each case and remains at \$9,000,000

(d)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
split	no entry			
	<i>Par is halved and issued / outstanding shares are doubled</i>			
small	Retained Earnings		3,750,000	
	Common Stock			150,000
	Paid-in Capital in Excess of Par			3,600,000
	<i>To record 15% stock dividend (500,000 X 15% X \$50)</i>			
large	Retained Earnings		500,000	
	Common Stock			500,000
	<i>To record 50% stock dividend (500,000 X 50% X \$2)</i>			

*The statement of stockholders' equity***B-14.08**

Pasquall Corporation
Statement of Stockholders' Equity
For the Year Ending December 31, 20X4

	Common Stock, \$1 Par	Paid-in Capital in Excess of Par	Retained Earnings	Treasury Stock	Total Stockholders' Equity
Balance on January 1	\$ -	\$ -	\$ -	\$ -	\$ -
Issuance of additional shares	4,000,000	8,000,000	-	-	12,000,000
Purchase of treasury stock	-	-	-	(75,000)	(75,000)
Net income	-	-	1,500,000	-	1,500,000
Cash dividends	-	-	(100,000)	-	(100,000)
Stock dividend	<u>200,000</u>	<u>1,000,000</u>	<u>(1,200,000)</u>	<u>-</u>	<u>-</u>
Balance on December 31	<u>\$4,200,000</u>	<u>\$9,000,000</u>	<u>\$ 200,000</u>	<u>\$ (75,000)</u>	<u>\$13,325,000</u>

Involved Solutions

I-14.01

Equity structure and impact

(a)

DEBT OPTION:

BRANFORD CORPORATION Balance Sheet August 15, 20X4

Assets

Cash		\$1,125,000
Accounts receivable		250,000
Inventory		750,000
Property, plant, & equipment (net)		<u>860,000</u>
Total assets		<u>\$2,985,000</u>

Liabilities

Accounts payable	\$ 125,000	
Accrued liabilities	260,000	
Notes payable	<u>1,290,000</u>	
Total liabilities		\$1,675,000

Stockholders' equity

Common stock, \$5 par	\$ 700,000	
Paid-in capital in excess of par	300,000	
Retained earnings	<u>310,000</u>	
Total stockholders' equity		<u>1,310,000</u>
Total liabilities and equity		<u>\$2,985,000</u>

COMMON STOCK OPTION:

BRANFORD CORPORATION
Balance Sheet
August 15, 20X4

Assets		
Cash		\$1,125,000
Accounts receivable		250,000
Inventory		750,000
Property, plant, & equipment (net)		<u>860,000</u>
Total assets		<u>\$2,985,000</u>
Liabilities		
Accounts payable	\$ 125,000	
Accrued liabilities	260,000	
Notes payable	<u>290,000</u>	
Total liabilities		\$ 675,000
Stockholders' equity		
Common stock, \$5 par	\$ 900,000	
Paid-in capital in excess of par	1,100,000	
Retained earnings	<u>310,000</u>	
Total stockholders' equity		<u>2,310,000</u>
Total liabilities and equity		<u>\$2,985,000</u>

NONCUMULATIVE PREFERRED STOCK OPTION:

BRANFORD CORPORATION
Balance Sheet
August 15, 20X4

Assets		
Cash		\$1,125,000
Accounts receivable		250,000
Inventory		750,000
Property, plant, & equipment (net)		<u>860,000</u>
Total assets		<u>\$2,985,000</u>
Liabilities		
Accounts payable	\$ 125,000	
Accrued liabilities	260,000	
Notes payable	<u>290,000</u>	
Total liabilities		\$ 675,000
Stockholders' equity		
Preferred stock, 8% noncumulative	\$1,000,000	
Common stock, \$5 par	700,000	
Paid-in capital in excess of par	300,000	
Retained earnings	<u>310,000</u>	
Total stockholders' equity		<u>2,310,000</u>
Total liabilities and equity		<u>\$2,985,000</u>

CUMULATIVE PREFERRED STOCK OPTION:

BRANFORD CORPORATION

Balance Sheet
August 15, 20X4

Assets		
Cash		\$1,125,000
Accounts receivable		250,000
Inventory		750,000
Property, plant, & equipment (net)		<u>860,000</u>
Total assets		<u>\$2,985,000</u>
Liabilities		
Accounts payable	\$ 125,000	
Accrued liabilities	260,000	
Notes payable	<u>290,000</u>	
Total liabilities		\$ 675,000
Stockholders' equity		
Preferred stock, 6% cumulative	\$1,000,000	
Common stock, \$5 par	700,000	
Paid-in capital in excess of par	300,000	
Retained earnings	<u>310,000</u>	
Total stockholders' equity		<u>2,310,000</u>
Total liabilities and equity		<u>\$2,985,000</u>

CONVERTIBLE PREFERRED STOCK OPTION:

BRANFORD CORPORATION

Balance Sheet
August 15, 20X4

Assets		
Cash		\$1,125,000
Accounts receivable		250,000
Inventory		750,000
Property, plant, & equipment (net)		<u>860,000</u>
Total assets		<u>\$2,985,000</u>
Liabilities		
Accounts payable	\$ 125,000	
Accrued liabilities	260,000	
Notes payable	<u>290,000</u>	
Total liabilities		\$ 675,000
Stockholders' equity		
Preferred stock, 4% convertible/cumulative	\$1,000,000	
Common stock, \$5 par	700,000	
Paid-in capital in excess of par	300,000	
Retained earnings	<u>310,000</u>	
Total stockholders' equity		<u>2,310,000</u>
Total liabilities and equity		<u>\$2,985,000</u>

(b)

The debt option imposes a fixed periodic payment requirement. The two cumulative preferred stock scenarios impose cash flow commitments that must be met ahead of common shareholders. The noncumulative and common stock scenarios involve payments that are discretionary.

(c)

The least risky scenario is the common stock route. However, this also involves the greatest amount of ownership dilution.

(d)

The debt option is risky because the periodic payments are mandatory. However, existing shareholders retain full ownership of the entity.

(e)

The common stock is valued at \$25 per share ($\$1,000,000/40,000$ shares). The \$1,000,000 in preferred stock might be converted at a price point above \$40 per share ($\$1,000,000/25,000$ shares). The preferred yields vary based on risk and opportunity. The lower yield relates to cases where the dividend is cumulative and where the preferred has the potential to be exchanged for more valuable common stock.

(f)

The preferred scenarios all result in the same fundamental balance sheet, but the economics vary based on the dividend and conversion feature. This information can be determined by inspection of financial statements and notes, but not by relying on the fundamental accounting equation (assets = liabilities = equity) alone.

	20X1	20X2	20X3	20X4	Totals
Total Income/Dividends	\$300,000	-0-	\$900,000	\$1,800,000	\$3,000,000
<u>If 3% Cumulative:</u>					
Preferred dividends	\$300,000	-0-	\$600,000	\$ 300,000	\$1,200,000
Common dividends	-0-	-0-	300,000	1,500,000	1,800,000
<u>If 4% Noncumulative:</u>					
Preferred dividends	\$300,000	-0-	\$400,000	\$ 400,000	\$1,100,000
Common dividends	-0-	-0-	500,000	1,400,000	1,900,000

Note that the cumulative stock pays \$300,000 per year (3% X \$10,000,000 par). Since no income was available for distribution during 20X2, the unpaid amount went into arrears and was paid in 20X3.

Note that the noncumulative stock pays \$400,000 per year (4% X \$10,000,000 par), but only to the extent income is available for distribution. The "underpayment" during 20X1 and 20X2 is simply foregone.

The board should note that the anticipated income level produces a greater common dividend over the four-year horizon with the noncumulative stock. If the income pattern differs, the actual results may differ significantly.

Impact of various stock transactions

I-14.03

	Total Equity	Common Stock/ Preferred Stock	Additional Paid-in Capital	Treasury Stock	Retained Earnings
Issue common stock at par	▲	▲	N/C	N/C	N/C
Issue common stock at > par	▲	▲	▲	N/C	N/C
Issue preferred stock at par	▲	▲	N/C	N/C	N/C
Issue preferred stock at > par	▲	▲	▲	N/C	N/C
Buy treasury stock (cost method)	▼	N/C	N/C	▲	N/C
Resell treasury stock > cost (cost method)	▲	N/C	▲	▼	N/C
Resell treasury stock < cost (cost method)	▲	N/C	▼*	▼	▼*
Declare cash dividend	▼	N/C	N/C	N/C	▼
Pay previously declared cash dividend	N/C	N/C	N/C	N/C	N/C
Declare and issue large stock dividend	N/C	▲	N/C	N/C	▼
Declare and issue small stock dividend (fair value > par)	N/C	▲	▲	N/C	▼
Declare and issue stock split	N/C	N/C	N/C	N/C	N/C

* Note that if additional paid-in capital is inadequate to absorb the difference between the cost and resale price, retained earnings may be reduced.

(a)

GENERAL JOURNAL				
Date	Accounts		Debit	Credit
	Cash		2,000,000	
	Common Stock			600,000
	Pd-in Cap in Excess of Par - CS			1,400,000
	<i>To record issuance of 200,000 shares of \$3 par value common stock at \$10 per share</i>			
A	Cash		5,100,000	
	Preferred Stock			5,000,000
	Pd-in Cap in Excess of Par - PS			100,000
	<i>To record issuance of 50,000 shares of \$100 par value preferred stock at \$102 per share</i>			
B	Treasury Stock		120,000	
	Cash			120,000
	<i>To record acquisition of 10,000 treasury shares at \$12 per share</i>			
C	Dividends		319,000	
	Dividends Payable			319,000
	<i>To record dividend declaration ((5,000,000 X 6%) + ((200,000 - 10,000) X \$0.10))</i>			
D	Dividends Payable		319,000	
	Cash			319,000
	<i>To record payment of previously declared dividends</i>			

GENERAL JOURNAL			
Date	Accounts	Debit	Credit
E	Cash	150,000	
	Treasury Stock		120,000
	Pd-in Cap in Excess of Par - CS		30,000
	<i>To record reissue of 10,000 treasury shares at \$15 per share</i>		
F	Retained Earnings	52,000	
	Common Stock		12,000
	Pd-in Cap in Excess of Par - CS		40,000
	<i>To record issuance of a 2% stock dividend (200,000 shares X 2% X \$13 per share market price)</i>		
G	Treasury Stock	220,000	
	Cash		220,000
	<i>To record acquisition of 20,000 treasury shares at \$11 per share</i>		
H	Income Summary	800,000	
	Retained Earnings		800,000
	<i>To close net income to retained earnings</i>		

(b)

Dry Dock Container Corporation
Statement of Stockholders' Equity
For the Year Ending December 31, 20X5

	Preferred Stock, \$100 Par	Common Stock, \$3 Par	Paid-in Capital in Excess of Par - PS	Paid-in Capital in Excess of Par - CS	Retained Earnings	Treasury Stock	Total Stockholders' Equity
Balance - January 1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Issue common shares	-	600,000	-	1,400,000	-	-	2,000,000
Issue preferred shares	5,000,000	-	100,000	-	-	-	5,100,000
Purchase treasury stock	-	-	-	-	-	(340,000)	(340,000)
Cash dividends	-	-	-	-	(319,000)	-	(319,000)
Reissue treasury stock	-	-	-	30,000	-	120,000	150,000
Net income	-	-	-	-	800,000	-	800,000
Stock dividend	-	12,000	-	40,000	(52,000)	-	-
Balance on December 31	<u>\$5,000,000</u>	<u>\$612,000</u>	<u>\$100,000</u>	<u>\$1,470,000</u>	<u>\$429,000</u>	<u>\$(220,000)</u>	<u>\$7,391,000</u>

(c)

Stockholders' Equity

Capital stock:

Preferred stock, \$100 par value, 6%, cumulative, 50,000 shares issued and outstanding	\$5,000,000	
Common stock, \$3 par value, 204,000 shares issued, and 184,000 shares outstanding	<u>612,000</u>	\$5,612,000

Additional paid-in capital:

Paid-in capital in excess of par – preferred stock	\$ 100,000	
Paid-in capital in excess of par – common stock	<u>1,470,000</u>	<u>1,570,000</u>
Total paid-in capital		\$7,182,000

Retained earnings

429,000

\$7,611,000

Less: Treasury stock, 20,000 shares at cost

(220,000)

Total stockholders' equity

\$7,391,000

The legible statement of stockholders' equity follows:

Paloma Corporation
Statement of Stockholders' Equity
For the Year Ending December 31, 20X7

	Preferred Stock, \$50 Par	Common Stock, \$2 Par	Capital in Excess of Par - PS	Paid-in Capital in Excess of Par - CS	Retained Earnings	Treasury Stock	Total Stock- holders' Equity
Balance on January 1	\$ -	\$600,000	\$ -	\$400,000	\$550,000	\$ -	\$1,550,000
Issuance of common	-	200,000	-	500,000	-	-	700,000
Issuance of preferred	500,000	-	5,000	-	-	-	505,000
Purchase treasury stock	-	-	-	-	-	(160,000)	(160,000)
Net income	-	-	-	-	275,000	-	275,000
Preferred cash dividends	-	-	-	-	(20,000)	-	(20,000)
Common cash dividends	-	-	-	-	(25,000)	-	(25,000)
Stock dividend	-	30,000	-	60,000	(90,000)	-	-
Balance on December 31	<u>\$500,000</u>	<u>\$830,000</u>	<u>\$5,000</u>	<u>\$960,000</u>	<u>\$690,000</u>	<u>\$(160,000)</u>	<u>\$2,825,000</u>

Answers to the specific questions follow:

If 10,000 preferred shares were issued, what was the per share par value and issue price? Par value = \$50 (\$500,000/10,000 shares); Issue price = \$50.50 (\$505,000/10,000 shares)

Assuming the preferred dividend reflected a full-year amount at the normal yield, what is the percentage rate associated with preferred stock? 4% (\$20,000/\$500,000)

What price per share was received for the newly issued common shares? \$7 (\$200,000/\$2 par = 100,000 shares; \$700,000/100,000 shares)

How much was the aggregate price paid for the treasury stock purchase? \$160,000

How many common shares were issued as of December 31? 415,000 (\$830,000/\$2)

What was the market price per share on the date of the stock dividend? \$6 (\$30,000/\$2 par = 15,000 shares; \$90,000/15,000 shares)

The solution to this problem will vary based on the specific companies examined by the students.

Chapter 15 Solutions

Basic Solutions

Correction of an error - entry and reporting

B-15.01

(a)

GENERAL JOURNAL

Date	Accounts	Debit	Credit
Mar. 20X4	Retained Earnings	90,000	
	Inventory		90,000
	<i>To record correction of error for overstatement of prior year's income and inventory (\$1,760,000 - \$1,670,000)</i>		

(b)

Once the error has been discovered, it would be completely inappropriate to continue to report the wrong values, even if they relate to a prior period. The income for 20X3 should be shown as \$810,000 (a \$90,000 reduction). The ending inventory at December 31, 20X3 should be stated as \$1,670,000 (a \$90,000 reduction).

(c)

Materiality is a matter of judgment. However, the error is about 10% of net income and more than 5% of the total inventory balance. It is likely that a reasonable person would conclude that the amount is material in relation to income and asset values. If the error is judged to be material, you should not make the erroneous entry. Begin by discussing the disagreement with the CFO. If you believe the CFO's continuing instructions are inappropriate, you should consider additional actions.

Many companies have established ethics hotlines that allow employees to "go around" rogue leadership to report potential ethical problems. As a general rule, most organizations attempt to establish controls that prevent unethical practices from being pushed out onto coworkers. If your organization does not have a systematic process for dealing with such problems, it should consider implementing this type of control.

(a)

TRENCH COAT		
Income Statement		
For the Year Ending December 31, 20X8		
Sales		\$7,000,000
Cost of goods sold		<u>4,550,000</u>
Gross profit		\$2,450,000
Operating expenses		
Selling	\$ 800,000	
Administrative	<u>1,200,000</u>	<u>2,000,000</u>
Income from continuing operations before income taxes		\$ 450,000
Income taxes		<u>180,000</u>
Income from continuing operations		\$ 270,000
Discontinued operations		
Gain on sale of swimming pool business	\$ 250,000	
Less: Income tax on disposal of swimming pool business	<u>100,000</u>	
Gain on discontinued operations		<u>150,000</u>
Net income		<u>\$ 420,000</u>

(b)

TRENCH COAT		
Income Statement		
For the Year Ending December 31, 20X8		
Sales		\$7,000,000
Cost of goods sold		<u>4,550,000</u>
Gross profit		\$2,450,000
Operating expenses		
Selling	\$ 800,000	
Administrative	1,200,000	
Gain on sale of swimming pool assets	<u>(250,000)</u>	<u>1,750,000</u>
Income from continuing operations before income taxes		\$ 700,000
Income taxes		<u>280,000</u>
Net income		<u>\$ 420,000</u>

MELANIE MIELKE CONSTRUCTION COMPANY
Income Statement
For the Year Ending December 31, 20XX

Sales		\$ 9,000,000
Cost of goods sold		<u>7,650,000</u>
Gross profit		\$ 1,350,000
Operating expenses		
Selling	\$ 300,000	
Administrative	800,000	
Loss of building material due to strike	<u>2,000,000</u>	<u>3,100,000</u>
Loss from continuing operations before tax benefit		\$(1,750,000)
Income tax benefit from operating loss		<u>(525,000)</u>
Net loss		\$(1,225,000)
Other comprehensive income		
Unrealized gain on available-for-sale securities	\$3,000,000	
Less: Income tax effect on unrealized gain	<u>900,000</u>	
Other comprehensive income, net of tax		<u>2,100,000</u>
Comprehensive income		<u>\$ 875,000</u>

The second income statement should be used. Current rules for reporting changes in accounting methods require the retrospective adjustment approach, where prior period financial statements are redone to reflect the new method. The cumulative effect reporting shown in the first income statement is not acceptable (this cumulative-effect type reporting was formerly in use, but is no longer acceptable).

The accounting change resulted in a pre-tax increase in 20X1 operating expenses of \$292,308 (\$1,650,000 - \$1,357,692). The after-tax impact is \$190,000 ($\$292,308 - (\$292,308 \times 35\%)$).

Note that the total income for both years is the same: $(\$1,100,000 + \$422,500) = (\$910,000 + \$612,500)$. This suggests that the accounting change did not impact income in any years prior to 20X1.

Three of the following statements are patently false. Find the three false statements. The other statements are true, and may include additional insights beyond those mentioned in the textbook.

- T "Earnings" is synonymous with "income from continuing operations plus or minus the effects of any discontinued operations."
- F Changes in accounting estimates must be reported by retrospective adjustment.
- F EBIT and EBITDA are accounting values that are required to be reported on the face of the income statement.
- T Other comprehensive income can be reported on the face of a statement of comprehensive income or in a separate reconciliation.
- F When there is reported change in value for available for sale securities, "comprehensive income" becomes synonymous with "net income."
- T Book value per share is an amount related to shares of common stock.

B-15.06

Earnings per share

(a)

Time Interval	Portion of Year	Shares Outstanding During Time Interval	Calculations	Weighted-Average Impact
Jan. 1 through Feb. 28	2 months	900,000	$2/12 \times 900,000 =$	150,000
March 1 through Sept. 30	7 months	1,200,000 (900,000 + 300,000)	$7/12 \times 1,200,000 =$	700,000
Oct. 1 through Dec. 31	3 months	1,150,000 (1,200,000 - 50,000)	$3/12 \times 1,150,000 =$	287,500
	12 months			1,137,500

(b)

$$\begin{aligned} \text{Basic EPS} &= \\ &= \text{Income Available to Common} \\ &\div \\ &\text{Weighted-Average Number of Common Shares Outstanding} \\ \\ \text{\$2.00} &= \$2,275,000 / 1,137,500 \end{aligned}$$

(c)

$$\begin{aligned} \text{Basic EPS} &= \\ &= \text{Income Available to Common} \\ &\div \\ &\text{Weighted-Average Number of Common Shares Outstanding} \\ \\ \text{\$1.80} &= (\$2,275,000 - \$227,500) / 1,137,500 \end{aligned}$$

(d)

Diluted EPS is for companies that have more complex capital structures involving stock options, warrants, convertible bonds, or convertible preferred stocks that are potentially to be exchanged for common shares. If Trinity were to issue such securities, then the EPS reporting would additionally include disclosure of a diluted EPS value that reflects the potential impact of such securities.

	Earnings Per Share	Dividends Per Share	Market Price Per Share	Average Annual Increase in Earnings
Andrews Corporation	\$2.50	\$0.00	\$25.00	5%
Borger Corporation	\$1.00	\$1.00	\$18.00	10%
Calvert Corporation	\$5.00	\$2.50	\$20.00	5%
Dorchester Corporation	\$1.25	\$0.00	\$10.00	25%
Easton Corporation	\$2.50	\$0.75	\$50.00	30%
Flores Corporation	\$2.00	\$0.10	\$25.00	20%
Gerber Corporation	\$0.10	\$0.00	\$ 5.00	10%
Houston Corporation	\$0.50	\$0.25	\$20.00	3%

	<u>P/E Ratio</u>	<u>PEG Ratio</u>	<u>Dividend Rate</u>	<u>Dividend Payout Ratio</u>
Formula	Market price divided by EPS	P/E divided by growth rate	Dividend divided by market price	Dividend divided by EPS
Andrews Corporation	10.00	2.00	0.00%	0.00%
Borger Corporation	18.00	1.80	5.56%	100.00%
Calvert Corporation	4.00	0.80	12.50%	50.00%
Dorchester Corporation	8.00	0.32	0.00%	0.00%
Easton Corporation	20.00	0.67	1.50%	30.00%
Flores Corporation	12.50	0.63	0.40%	5.00%
Gerber Corporation	50.00	5.00	0.00%	0.00%
Houston Corporation	40.00	13.33	1.25%	50.00%

Sorting by ratio outcome will provide different rankings, based on the specific ratio used. For example, the lowest P/E is not the lowest PEG. Emphasize the importance of considering all variables in evaluating a stock's performance and potential.

Brazil Corporation:

Brazil's common stock was issued at \$3 per share.
 $(\$150,000 \text{ par} + \$750,000 \text{ additional paid-in capital}) \div 300,000 \text{ shares}$

Brazil's common stock has a book value per share of \$11.
 $\$3,300,000 \text{ total equity} \div 300,000 \text{ shares}$

Chile Corporation:

Chile's common stock was issued at \$5 per share.
 $(\$200,000 \text{ par} + \$800,000 \text{ additional paid-in capital}) \div 200,000 \text{ shares}$

Chile's preferred was issued at \$51 per share.
 $(\$3,000,000 \text{ par} + \$60,000 \text{ additional paid-in capital}) \div 60,000 \text{ shares}$

Chile's common stock has a book value per share of \$38.65:

Total Equity		\$10,970,000
Less: Amount of equity attributable to preferred		
Call price (\$3,000,000 X 103%)	\$3,090,000	
Dividends claim (1 year @ \$3,000,000 X 5%)	150,000	3,240,000
Residual equity for common shares		\$ 7,730,000
Number of common shares		200,000
Book value per common share (\$7,730,000/200,000)		\$38.65

Return on assets and return on equity

B-15.09

	Net Income	Interest Expense*	Preferred Dividends	Average Assets	Average Equity
Alejando Corp.	\$120,000	\$10,000	\$0	\$1,100,000	\$1,000,000
Ling Corp.	\$100,000	\$80,000	\$20,000	\$1,900,000	\$1,100,000
Beaufort Corp.	\$700,000	\$200,000	\$15,000	\$4,000,000	\$2,000,000
Robinson Corp.	\$300,000	\$200,000	\$100,000	\$6,000,000	\$4,000,000

	Return on Assets*	Return on Equity**
Alejando Corp.	11.82%	12.00%
Ling Corp.	9.47%	7.27%
Beaufort Corp.	22.50%	34.25%
Robinson Corp.	8.33%	5.00%

* Return on Assets Ratio = (Net Income + Interest Expense)/Average Assets

** Return on Equity Ratio = (Net Income - Preferred Dividends)/Average Common Equity

Discussion:

The interest rate appears to be 10%. Notice that interest expense is about 10% of the average debt. The average debt is estimated as the difference between the average assets and average equity.

Alejando and Beaufort each have a ROE > ROA. This suggests effective utilization of debt. Notice that these two companies also have an ROA > interest rate. The other two companies have an ROA < interest cost, and this is resulting (generally) in a lower ROE.

- (a) Deviations in measured outcomes from period to period should be the result of deviations in underlying performance (not accounting quirks).
Consistency

- (b) Clear and concise to those with reasonable business knowledge
Understandability

- (c) Available in sufficient time to be capable of influence.
Timeliness

- (d) Even though different companies may use different accounting methods, there is still sufficient basis for valid comparison.
Comparability

- (e) Information must be truthful; complete, neutral, and free from error.
Faithful representation

- (f) Information should be timely and bear on the decision-making process by possessing predictive or confirmatory (feedback) value.
Relevancy

- (g) Different knowledgeable and independent observers reach similar conclusions.
Verifiability

*Identification of professional organizations***B-15.11**

This organization is viewed as centric to the coordination of global harmonization of accounting standards.

International Accounting Standards Board (IASB)

This organization passed "Section 404" requiring public companies to implement a robust system of internal control.

U.S. Congress

This organization is the primary private-sector accounting rule-making body in the U.S.

Financial Accounting Standards Board (FASB)

This organization is no longer in existence, but once issued "opinions" on acceptable accounting practices.

Accounting Principles Board (APB)

This organization is a professional association of accountants who are seeking to advance the practice of accounting.

American Institute of CPAs (AICPA)

This organization was created many years ago, and it is charged with administration of laws that regulate the reporting practices of companies whose stock is publicly traded.

Securities and Exchange Commission (SEC)

This organization is charged with overseeing the auditors of public companies.

Public Company Accounting Oversight Board (PCAOB)

- (a) Overcomes mixing alternative measurements into the financial statements.
Monetary unit assumption

- (b) A continuous business process can be segmented into discrete intervals.
Periodicity assumption

- (c) Provides for an orderly allocation of costs and revenues over extended time periods.
Going-concern assumption

- (d) Justification for consolidating the accounts of separate legal entities.
Entity assumption

- (e) Because of this, changing currency values due to inflation effects are disregarded.
Stable currency assumption

- (a) The currency of the country in which a subsidiary operates.
Local currency

- (b) The anticipated direction of global GAAP development.
Convergence

- (c) The world-wide equivalent of the FASB.
International Accounting Standards Board

- (d) The currency of the country in which financial statements are prepared for owners.
Reporting currency

- (e) Conversion process that uses a variety of exchange rates for assets.
Remeasurement

- (f) The “plug” adjustment is an item of “other comprehensive income.”
Translation

B-15.14

Foreign currency transactions - purchasing activity

GENERAL JOURNAL				Page
Date	Accounts	Debit	Credit	
5-Dec	Inventory	100,000		
	Accounts Payable			100,000
	<i>Purchased inventory on account</i>			
11-Jan	Accounts Payable	100,000		
	Cash			100,000
	<i>Paid accounts payable</i>			

GENERAL JOURNAL				Page
Date	Accounts	Debit	Credit	
5-Dec	Inventory	147,000		
	Accounts Payable			147,000
	<i>Purchased inventory on account; 100,000€ X \$1.47</i>			
31-Dec	Accounts Payable	1,000		
	Currency Exchange Gain			1,000
	<i>Adjusted payable based on exchange rate change; 100,000€ X \$1.46 = \$146,000 (vs. \$147,000)</i>			
11-Jan	Accounts Payable	146,000		
	Currency Exchange Loss	3,000		
	Cash			149,000
	<i>Paid accounts payable and recorded exchange loss; 100,000€ X \$1.49 = \$149,000 (vs. \$146,000)</i>			

Foreign currency transactions - sales activity

B-15.15

GENERAL JOURNAL				Page
Date	Accounts	Debit	Credit	
5-Dec	Accounts Receivable	100,000		
	Sales		100,000	
	<i>Sold goods on account</i>			
11-Jan	Cash	100,000		
	Accounts Receivable		100,000	
	<i>Received payment on account</i>			

GENERAL JOURNAL				Page
Date	Accounts	Debit	Credit	
5-Dec	Accounts Receivable	147,000		
	Sales		147,000	
	<i>Sold goods on account; 100,000€ X \$1.47</i>			
31-Dec	Currency Exchange Loss	1,000		
	Accounts Receivable		1,000	
	<i>Adjusted receivable based on exchange rate change; 100,000€ X \$1.46 = \$146,000 (vs. \$147,000)</i>			
11-Jan	Cash	149,000		
	Currency Exchange Gain		3,000	
	Accounts Receivable		146,000	
	<i>Received payment on account and recorded exchange gain; 100,000€ X \$1.49 = \$149,000 (vs. \$146,000)</i>			

Involved Solutions

I-15.01

Income reporting for complex fact situation

(a)

STEARNS CORPORATION			
Income Statement			
For the Year Ending December 31, 20X7			
Sales			\$7,500,000
Cost of goods sold			<u>3,200,000</u>
Gross profit			\$4,300,000
Operating expenses			
Selling	\$1,000,000		
General & administrative	1,500,000		
Loss on sale of paint factory	<u>500,000</u>	<u>3,000,000</u>	
Income from continuing operations before income tax			\$1,300,000
Income tax on continuing operations			<u>390,000</u>
Income from continuing operations			\$ 910,000
Discontinued operations			
Gain on sale of financial services business	\$3,000,000		
Less: Income tax on sale of business	<u>900,000</u>		
Gain on discontinued operations, net of tax			<u>2,100,000</u>
Net income			<u>\$3,010,000</u>

(b)

The beginning retained earnings would be revised to \$7,480,000 (\$5,500,000 + \$2,400,000 accounting change - \$420,000 error correction).

(c)

Total comprehensive income is \$3,410,000 (\$3,010,000 net income + \$400,000 other comprehensive income).

Earnings per share - basic and diluted

I-15.02

(a)

Time Interval	Portion of Year	Shares Outstanding During Time Interval	Calculations	Weighted-Average Impact
Jan. 1 through June 30	6 months	3,000,000	$6/12 \times 3,000,000 =$	1,500,000
July 1 through Sept. 30	3 months	3,600,000 (3,000,000 + 600,000)	$3/12 \times 3,600,000 =$	900,000
Oct. 1 through Dec. 31	3 months	3,400,000 (3,600,000 - 200,000)	$3/12 \times 3,400,000 =$	850,000
	<u>12 months</u>			<u>3,250,000</u>

$$\begin{aligned} & \text{Basic EPS} \\ & = \\ & \text{Income Available to Common} \\ & \div \\ & \text{Weighted-Average Number of Common Shares Outstanding} \end{aligned}$$

$$\$0.65 = (\$2,600,000 - \$500,000) / 3,250,000$$

(b)

$$\begin{aligned} & \text{Diluted EPS} \\ & = \\ & \text{Net Income} \\ & \div \\ & \text{Weighted-Average Number of Common Shares Outstanding + Shares from Assumed Conversion} \\ & \text{of Preferred} \end{aligned}$$

$$\$0.61 = \$2,600,000 / (3,250,000 + 1,000,000)$$

Maximum price based on a P/E ratio of 15 is \$105 (15 X \$7):

$$\begin{aligned} & \text{EPS} \\ & = \\ & \text{Income Available to Common} \\ & \div \\ & \text{Weighted-Average Number of Common Shares Outstanding} \end{aligned}$$

$$\begin{aligned} & \mathbf{\$7} \\ & = \\ & \$3,000,000 - (\$5,000,000 \times 4\%) \\ & \div \\ & 400,000 \end{aligned}$$

Maximum price based on a price to book value of 3 is \$90 (3 X \$30):

$$\begin{aligned} & \text{Book Value Per Share} \\ & = \\ & \text{"Common" Equity} \div \text{Common Shares Outstanding} \end{aligned}$$

$$\begin{aligned} & \mathbf{\$30} \\ & = \\ & \$17,250,000 - (\$5,000,000 \times 105\%) \\ & \div \\ & 400,000 \end{aligned}$$

Maximum price based on a minimum dividend yield of 3% is \$66.67 (\$2 + .03):

$$\begin{aligned} & \text{Common Dividends Per Share} \\ & = \\ & \text{Common Dividends} \div \text{Common Shares Outstanding} \end{aligned}$$

$$\begin{aligned} & \mathbf{\$2} \\ & = \\ & \$1,000,000 - (\$5,000,000 \times 4\%) \\ & \div \\ & 400,000 \end{aligned}$$

To stay within constraints, the maximum share purchase price would be \$66.67 per share.

Team-based approach to foreign currency transactions

I-15.04

A

GENERAL JOURNAL			Page	
Date	Accounts	Debit (\$)	Credit (\$)	
1-Mar	Accounts Receivable	5,000		
	Sales		5,000	
	<i>Sold on account</i>			
1-Apr	Cash	5,000		
	Accounts Receivable		5,000	
	<i>Collected account</i>			
1-Apr	Accounts Receivable	5,250		
	Sales		5,250	
	<i>Sold on account (£2,500 X \$2.10)</i>			
1-May	Cash	5,125		
	Currency Exchange Loss	125		
	Accounts Receivable		5,250	
	<i>Collected account (£2,500 X \$2.05)</i>			
1-May	Inventory	7,000		
	Accounts Payable		7,000	
	<i>Purchase on account</i>			
1-Jun	Accounts Payable	7,000		
	Cash		7,000	
	<i>Paid on account</i>			
1-Jun	Inventory	6,825		
	Accounts Payable		6,825	
	<i>Purchase on acct. (£3,500 X \$1.95)</i>			
1-Jul	Cash	7,000		
	Currency Exchange Gain		175	
	Accounts Payable		6,825	
	<i>Paid on account (£3,500 X \$2.00)</i>			

B

GENERAL JOURNAL			Page	
Date	Accounts	Debit (£)	Credit (£)	
1-Mar	Inventory	2,500		
	Accounts Payable		2,500	
	<i>Purchase on acct. (\$5,000 ÷ £2.00)</i>			
1-Apr	Accounts Payable	2,500		
	Currency Exchange Gain		119	
	Cash		2,381	
	<i>Paid on account (\$5,000 ÷ £2.10)</i>			
1-Apr	Inventory	2,500		
	Accounts Payable		2,500	
	<i>Purchase on account</i>			
1-May	Accounts Payable	2,500		
	Cash		2,500	
	<i>Paid on account</i>			
1-May	Accounts Receivable	3,415		
	Sales		3,415	
	<i>Sold on account (\$7,000 ÷ £2.05)</i>			
1-Jun	Cash	3,590		
	Currency Exchange Gain		175	
	Accounts Receivable		3,415	
	<i>Collected account (\$7,000 ÷ £1.95)</i>			
1-Jun	Accounts Receivable	3,500		
	Sales		3,500	
	<i>Sold on account</i>			
1-Jul	Cash	3,500		
	Accounts Receivable		3,500	
	<i>Collected account</i>			

Chapter 16 Solutions

Basic Solutions

Liquidity analysis

B-16.01

	Sub A	Sub B	Sub C
Cash	\$ 1,000,000	\$ 3,000,000	\$ 5,000,000
Trading securities	3,000,000	2,000,000	1,000,000
Accounts receivable	<u>6,000,000</u>	<u>5,000,000</u>	<u>14,000,000</u>
Quick Assets	\$10,000,000	\$10,000,000	\$20,000,000
Inventory	4,000,000	8,000,000	7,000,000
Prepaid rent	<u>2,000,000</u>	<u>2,000,000</u>	<u>3,000,000</u>
Current Assets	<u>\$16,000,000</u>	<u>\$20,000,000</u>	<u>\$30,000,000</u>
Accounts payable	\$ 5,000,000	\$ 2,000,000	\$ 8,000,000
Interest payable	1,000,000	1,000,000	6,000,000
Note payable (due in 6 months)	4,000,000	1,500,000	4,000,000
Unearned revenues	<u>3,000,000</u>	<u>500,000</u>	<u>2,000,000</u>
Current Liabilities	<u>\$13,000,000</u>	<u>\$ 5,000,000</u>	<u>\$20,000,000</u>
QUICK RATIO (quick assets ÷ current liabilities)	0.769	2.000	1.000
CURRENT RATIO (current assets ÷ current liabilities)	1.231	4.000	1.500

Even though Subsidiary C has the most cash, the ratio analysis reveals that Subsidiary B is the most able to pay the dividend. Subsidiary A is quite constrained and would not be a good source of funds for the proposed acquisition. It is also recommended to evaluate liquidity "after" subtracting the dividend (you can change the cash line above to evaluate liquidity after distributing a \$1,000,000 cash dividend). Subsidiary B is again confirmed to be in the best position to pay out the dividend. Explain to your students that other factors should also be considered. For example, the current and quick ratio do not include consideration of long-term debt positions, profitability, and other factors that should ultimately bear on the decision.

IMPORTED DATA:

Applicant	Total Liabilities	Paid-in Capital	Retained Earnings	Net Income for Past Year	Taxes for Past Year
Berkley	5,000,000	2,000,000	2,000,000	1,000,000	250,000
Costnor	2,500,000	1,000,000	500,000	400,000	100,000
Dalia	3,000,000	400,000	5,200,000	500,000	110,000
Ferguson	500,000	700,000	3,500,000	800,000	90,000
Hernandez	2,000,000	200,000	700,000	600,000	75,000
Indio	1,600,000	1,200,000	8,000,000	250,000	50,000
Jordanson	4,400,000	5,000,000	(400,000)	(60,000)	-
Kervin	3,000,000	1,500,000	1,800,000	10,000	1,000
Lensmire	600,000	500,000	500,000	250,000	60,000

CALCULATIONS:

	Debt to Total Assets*	Debt to Equity**	Times Interest Earned***
Berkley	0.56	1.25	4.57
Costnor	0.63	1.67	3.86
Dalia	0.35	0.54	3.90
Ferguson	0.11	0.12	26.43
Hernandez	0.69	2.22	5.82
Indio	0.15	0.17	3.68
Jordanson	0.49	0.96	0.81
Kervin	0.48	0.91	1.05
Lensmire	0.38	0.60	8.38

* Total Liabilities ÷ (Total Liabilities + Paid-in Capital + Retained Earnings)

** Total Liabilities ÷ (Paid-in Capital + Retained Earnings)

*** (Net Income + Income Taxes + (7% X Total Liabilities)) ÷ (7% X Total Liabilities)

The acceptable ratios are noted in bold, above. Only Ferguson and Lensmire meet all conditions for further evaluation.

(a)

$$\begin{aligned}
 & \text{Accounts Receivable Turnover Ratio} \\
 & = \\
 & \text{Net Credit Sales/Average Net Accounts Receivable*} \\
 & = \\
 & \$2,600,000/[(\$700,000 + \$900,000)/2] \\
 & = \\
 & \$2,600,000/\$800,000 \\
 & = \\
 & \mathbf{3.25}
 \end{aligned}$$

* Ending accounts receivable = \$700,000 + \$2,600,000 sales - \$2,400,000 collections = \$900,000

(b)

$$\begin{aligned}
 & \text{Inventory Turnover Ratio} \\
 & = \\
 & \text{Cost of Goods Sold/Average Inventory**} \\
 & = \\
 & \$1,775,000/[(\$50,000 + \$75,000)/2] \\
 & = \\
 & \$1,775,000/\$62,500 \\
 & = \\
 & \mathbf{28.4}
 \end{aligned}$$

** Ending inventory = \$50,000 + \$1,800,000 purchases - \$1,775,000 cost of goods sold = \$75,000

- (c) Stanley is doing much better than its competitors as it relates to managing inventory (28.4 vs. 4), but is lagging behind as it relates to collecting receivables (3.25 vs. 6).

(a)			
	Sales	100%	\$100,000,000
	Cost of goods sold	40%	<u>40,000,000</u>
	Gross profit	60%	\$ 60,000,000
	Selling, general & administrative	50%	<u>50,000,000</u>
	Net income	10%	<u>\$ 10,000,000</u>

(b)

$$\begin{aligned}
 & \text{Return on Assets Ratio} \\
 & = \\
 & \frac{(\text{Net Income} + \text{Interest Expense})}{\text{Average Assets}} \\
 & = \\
 & \frac{(\$10,000,000 + \$0)}{(\$75,000,000 + (\$75,000,000 + \$10,000,000 - \$2,000,000))/2} \\
 & = \\
 & \mathbf{12.658\%}
 \end{aligned}$$

$$\begin{aligned}
 & \text{Return on Equity Ratio} \\
 & = \\
 & \frac{(\text{Net Income} - \text{Preferred Dividends})}{\text{Average Common Equity}} \\
 & = \\
 & \frac{(\$10,000,000 - \$2,000,000)}{(\$35,000,000^* + (\$35,000,000 + \$10,000,000 - \$2,000,000))/2} \\
 & = \\
 & \mathbf{20.513\%}
 \end{aligned}$$

* Beginning common equity = \$75,000,000 - preferred equity (\$40,000,000) = \$35,000,000

Preferred equity = \$2,000,000 dividend ÷ 5% = \$40,000,000

Return on equity is higher than return on assets because the overall rate of return (12.658%) is higher than the 5% dividend on preferred equity. Essentially, the company is obtaining 5% financing from preferred shareholders, and deploying this capital to earn a higher rate of return. The benefit of this strategy is reflected in the higher rate of return for common shareholders.

(a)

$$\text{Market Price Per Share } (\$21) \div \text{Earnings Per Share } (?) = 15$$

$$\$21 \div \underline{\$1.40 \text{ EPS}} = 15$$

$$10,000,000 \text{ shares} \times \$1.40 \text{ per share} = \underline{\$14,000,000 \text{ net income}}$$

$$\text{Market Price Per Share } (\$21) \times \text{Yield } (3\%) = \text{Dividend Per Share}$$

$$\$21 \times 3\% = \underline{\$0.63}$$

$$\text{"Common" Equity} \div \text{Common Shares Outstanding} = \text{Book Value Per Share}$$

$$\text{"Common" Equity} \div 10,000,000 = (\$21 \div 2)$$

$$\underline{\$105,000,000 \text{ common equity}} = \$10.50 \times 10,000,000$$

(b)

$$(10,000,000 \text{ shares} \times \$1.40 \text{ per share}) + \text{preferred dividends } (6\% \times \$10,000,000)$$

$$= \underline{\$14,600,000 \text{ net income}}$$

$$\$105,000,000 + \$10,000,000 \text{ additional for preferred} = \text{total equity } (\$115,000,000)$$

$$\$115,000,000 - \$11,000,000 \text{ call price of preferred} = \text{common equity } (\$104,000,000)$$

$$\$104,000,000 \div 10,000,000 \text{ shares} = \underline{\$10.40 \text{ book value per share}}$$

(a) Issue common stock for land	Non-cash investing/financing activity
(b) Issue common stock for cash	Cash flow from financing activity
(c) Pay interest on loan	Cash flow from operating activity
(d) Sell goods for cash	Cash flow from operating activity
(e) Pay employee salaries	Cash flow from operating activity
(f) Pay dividends to common shareholders	Cash flow from financing activity
(g) Receive dividend on an investment	Cash flow from operating activity
(h) Obtain proceeds of long-term loan	Cash flow from financing activity
(i) Acquire treasury shares	Cash flow from financing activity
(j) Purchase land for cash	Cash flow from investing activity
(k) Buy inventory for resale	Cash flow from operating activity

Direct calculation of operating cash flows

B-16.07

Cash flows from operating activities:

Cash received from customers		\$688,000
Less cash paid for:		
Merchandise inventory	\$384,000	
Selling and administrative expenses	130,000	
Income taxes	<u>45,000</u>	<u>559,000</u>
Net cash provided by operating activities		<u>\$129,000</u>

Cash received from customers: Sales - Increase in Receivables

$$\$700,000 - (\$82,000 - \$70,000) = \$688,000$$

Cash paid for inventory: COGS - Decrease in Inventory - Increase in Payables

$$(\$700,000 - \$300,000) - (\$50,000 - \$41,000) - (\$44,000 - \$37,000) = \$384,000$$

Cash paid for selling and admin.: Selling/Admin - Depreciation

$$\$140,000 - \$10,000 = \$130,000$$

Cash flows from operating activities:

Net income*		\$115,000
Add (deduct) noncash effects on operating income		
Depreciation expense	\$ 10,000	
Increase in accounts receivable	(12,000)	
Decrease in inventory	9,000	
Increase in accounts payable	<u>7,000</u>	<u>14,000</u>
Net cash provided by operating activities		\$129,000

- * Sales (\$700,000) - cost of sales (\$400,000) = \$300,000 gross profit

Gross profit (\$300,000) - selling and administrative costs (\$140,000) - income taxes (\$45,000) = \$115,000 net income

Rearranging cash flows in good form - direct approach

B-16.09

HERMAN CORPORATION
Statement of Cash Flows
For the Year Ending December 31, 20X2

Cash flows from operating activities:

Cash receipts:

Cash received from customers	\$ 2,350,000	
Dividend received on investments	<u>10,000</u>	\$ 2,360,000

Less cash paid for:

Merchandise inventory	\$ 760,000	
Selling and administrative expenses	696,000	
Interest on loans	56,000	
Income taxes	<u>124,000</u>	<u>(1,636,000)</u>

Net cash provided by operating activities \$ 724,000

Cash flows from investing activities:

Sale of building	\$ 800,000	
Purchase of equipment	<u>(435,000)</u>	
Net cash provided by investing activities		365,000

Cash flows from financing activities:

Proceeds from issuing stock	\$ 1,400,000	
Repayment of long-term note payable	(2,000,000)	
Dividends on common	<u>(175,000)</u>	
Net cash used by financing activities		<u>(775,000)</u>

Net increase in cash \$ 314,000

Cash balance at January 1, 20X2 175,000

Cash balance at December 31, 20X2 \$ 489,000

Noncash investing/financing activities:

Bought land by issuing promissory note payable \$ 450,000

RIMMEREX CORPORATION
Statement of Cash Flows
For the Year Ending December 31, 20X5

Cash flows from operating activities:

Net income		\$ 215,000
Add (deduct) noncash effects on operating income		
Depreciation expense	\$ 68,000	
Gain on sale of land	(20,000)	
Decrease in accounts receivable	21,000	
Increase in inventory	(27,800)	
Increase in prepaid insurance	(3,000)	
Decrease in accounts payable	(34,000)	
Increase in income taxes payable	<u>7,000</u>	<u>11,200</u>
Net cash provided by operating activities		\$ 226,200

Cash flows from investing activities:

Sale of land	\$430,000	
Purchase of equipment	<u>(75,000)</u>	
Net cash provided by investing activities		355,000

Cash flows from financing activities:

Repayment of long-term note payable	(180,000)	
Dividends on common	<u>(50,000)</u>	
Net cash used by financing activities		<u>(230,000)</u>

Net increase in cash		\$ 351,200
Cash balance at January 1, 20X5		<u>63,800</u>
Cash balance at December 31, 20X5		<u>\$ 415,000</u>

Noncash investing/financing activities:

Bought building by issuing common stock		<u>\$ 850,000</u>
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The operating cash flows section typically begins with net income.

Indirect

Separate disclosure is provided for noncash investing/financing activities.

Both

Requires supplemental disclosure reconciling net income to operating cash flows.

Direct

Conceptually, the preferred approach.

Direct

Includes three separate sections - operating, investing, and financing.

Both

Requires supplemental disclosure of cash paid for interest and cash paid for taxes.

Indirect

A loss on the sale of a plant asset would be added back in operating cash flows.

Indirect

Waguespack Corporation is displaying cash flow stress. Notice that it has negative cash flow from operations. The company's net income would have been a loss without the gain on sale of equipment. In addition, the company is experiencing potentially problematic increases in receivables (i.e., collectibility?), decreases in inventory (i.e., are supply levels adequate?), and increases in payables (i.e., necessary to defer payment?). In addition, the company has sold equipment and borrowed money. In contrast, Hedrick has positive operating cash flow, has invested in equipment, and reduced debt.

OZARK CORPORATION
Statement of Cash Flows (Direct Approach)
For the Year Ending December 31, 20X5

Cash flows from operating activities:

Cash received from customers		\$ 972,250
Less cash paid for:		
Merchandise inventory	\$ 457,500	
Selling and administrative expenses	317,000	
Interest	24,500	
Income taxes	<u>46,000</u>	<u>(845,000)</u>
Net cash provided by operating activities		\$ 127,250

Cash flows from investing activities:

Purchase of equipment	\$ (200,000)	
Net cash used by investing activities		(200,000)

Cash flows from financing activities:

Proceeds from issuing stock	\$ 100,000	
Dividends on common	<u>(40,000)</u>	
Net cash provided by financing activities		<u>60,000</u>

Net decrease in cash		\$ (12,750)
Cash balance at January 1, 20X5		<u>471,450</u>
Cash balance at December 31, 20X5		<u>\$ 458,700</u>

Cash received from customers: Sales - Increase in Receivables

$$\$1,000,000 - (\$199,250 - \$171,500) = \$972,250$$

Cash paid for inventory: COGS - Decrease in Inventory + Decrease in Payables

$$(\$1,000,000 - \$520,000) - (\$278,800 - \$248,600) + (\$93,400 - \$85,700) = \$457,500$$

Cash paid for selling and admin.: Selling/Admin - Depreciation + Increase in Prepaids

$$\$340,000 - \$25,000 + (\$13,000 - \$11,000) = \$317,000$$

Cash paid for interest: Interest Expense + Decrease in Interest Payable

$$\$20,000 + (\$15,000 - \$10,500) = \$24,500$$

Cash paid for income taxes: Income Tax Expense - Increase in Taxes Payable

$$\$60,000 - (\$22,000 - \$8,000) = \$46,000$$

OZARK CORPORATION
Statement of Cash Flows (Indirect Approach)
For the Year Ending December 31, 20X5

Cash flows from operating activities:

Net income		\$ 100,000
Add (deduct) noncash effects on operating income		
Depreciation expense	\$ 25,000	
Increase in accounts receivable	(27,750)	
Decrease in inventory	30,200	
Increase in prepaid insurance	(2,000)	
Decrease in accounts payable	(7,700)	
Decrease in interest payable	(4,500)	
Increase in income taxes payable	<u>14,000</u>	<u>27,250</u>
Net cash provided by operating activities		\$ 127,250

Cash flows from investing activities:

Purchase of equipment	\$ (200,000)	
Net cash used by investing activities		(200,000)

Cash flows from financing activities:

Proceeds from issuing stock	\$ 100,000	
Dividends on common	<u>(40,000)</u>	
Net cash provided by financing activities		<u>60,000</u>

Net decrease in cash		\$ (12,750)
Cash balance at January 1, 20X5		<u>471,450</u>
Cash balance at December 31, 20X5		<u>\$ 458,700</u>

Involved Solutions

Ratios from comprehensive financial statements

I-16.01

Current Ratio	4.70
Current Assets ÷ Current Liabilities	\$940,000 ÷ \$200,000
Quick Ratio	4.25
(Cash + Short-term Investments + Accounts Receivable) ÷ Current Liabilities	\$850,000 ÷ \$200,000
Debt to Total Assets Ratio	0.42
Total Debt ÷ Total Assets	\$1,000,000 ÷ \$2,375,000
Debt to Total Equity Ratio	0.73
Total Debt ÷ Total Equity	\$1,000,000 ÷ \$1,375,000
Times Interest Earned Ratio	4.08
Income Before Income Taxes and Interest ÷ Interest Charges	\$265,000 ÷ \$65,000
Accounts Receivable Turnover Ratio	5.27
Net Credit Sales ÷ Average Net Accounts Receivable	\$1,685,000 ÷ \$320,000
Inventory Turnover Ratio	9.80
Cost of Goods Sold ÷ Average Inventory	\$980,000 ÷ \$100,000
Net Profit on Sales	9.50%
Net Income ÷ Net Sales	\$160,000 ÷ \$1,685,000
Gross Profit Margin	41.84%
Gross Profit ÷ Net Sales	\$705,000 ÷ \$1,685,000
Return on Assets	9.85%
(Net Income + Interest Expense) ÷ Average Assets	\$225,000 ÷ \$2,285,000
Return on Equity	12.12%
(Net Income - Preferred Dividends) ÷ Average Common Equity	\$160,000 ÷ \$1,320,000

EPS	\$0.80
Income Available to Common ÷ Weighted-Average Number of Common Shares	$\$160,000 \div 200,000$
P/E	20
Market Price Per Share ÷ Earnings Per Share	$\$16.00 \div \0.80
Dividend Rate/Yield	1.56%
Annual Cash Dividend ÷ Market Price Per Share	$(\$50,000/200,000) \div \16.00
Dividend Payout Ratio	31.25%
Annual Cash Dividend ÷ Earnings Per Share	$(\$50,000/200,000) \div \0.80
Book Value Per Share	\$6.88
"Common" Equity ÷ Common Shares Outstanding	$\$1,375,000 \div 200,000$

Preparation of statement of cash flows (direct)

I-16.02

TRAVIS ENGINEERING
Statement of Cash Flows
For the Year Ending December 31, 20X3

Cash flows from operating activities:

Cash received from customers		\$ 2,812,000
Less cash paid for:		
Merchandise inventory	\$1,476,200	
Salaries	433,500	
Utilities	65,700	
Interest	55,000	
Income taxes	<u>240,000</u>	<u>(2,270,400)</u>
Net cash provided by operating activities		\$ 541,600

Cash flows from investing activities:

Sale of equipment	\$ 50,000	
Purchase of equipment	<u>(119,000)</u>	
Net cash used by investing activities		(69,000)

Cash flows from financing activities:

Proceeds from issuing stock	\$ 160,000	
Dividends on common	<u>(105,700)</u>	
Net cash provided by financing activities		<u>54,300</u>

Net increase in cash**\$ 526,900****Cash balance at January 1, 20X3**145,300**Cash balance at December 31, 20X3**\$ 672,200**Noncash investing/financing activities**

Issued note payable for land	<u>\$ 1,000,000</u>
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Reconciliation of net income to cash flows from operating activities:

Net income		\$390,200
Add (deduct) noncash effects on operating income		
Depreciation expense	\$ 76,800	
Loss on sale of equipment	15,000	
Increase in accounts receivable	(44,000)	
Decrease in inventory	82,400	
Increase in accounts payable	17,700	
Decrease in utilities payable	(1,500)	
Increase in interest payable	<u>5,000</u>	<u>151,400</u>
Net cash provided by operating activities		\$541,600

Cash received from customers: Sales - Increase in Receivables

$$\$2,856,000 - (\$219,600 - \$175,600) = \$2,812,000$$

Cash paid for inventory: COGS - Decrease in Inventory - Increase in Payables

$$\$1,576,300 - (\$316,900 - \$234,500) - (\$111,100 - \$93,400) = \$1,476,200$$

Cash paid for utilities: Utilities Expense + Decrease in Utilities Payable

$$\$64,200 + (\$4,000 - \$2,500) = \$65,700$$

Cash paid for interest: Interest Expense - Increase in Interest Payable

$$\$60,000 - \$5,000 = \$55,000$$

Cash paid for equipment: Ending Balance + Cost of Item Sold - Beginning Balance

$$\$900,000 + \$75,000 - \$856,000 = \$119,000$$

FRED SLEZAK CORPORATION
Statement of Cash Flows
For the Year Ending December 31, 20X5

Cash flows from operating activities:

Net income		\$115,000
Add (deduct) noncash effects on operating income		
Depreciation expense	\$ 30,000	
Loss on sale of land	45,000	
Increase in accounts receivable	(30,000)	
Decrease in inventory	10,000	
Increase in prepaid expenses	(10,000)	
Decrease in accounts payable	(7,000)	
Increase in interest payable	<u>2,000</u>	<u>40,000</u>
Net cash provided by operating activities		\$155,000

Cash flows from investing activities:

Sale of land	\$ 55,000	
Net cash provided by investing activities		55,000

Cash flows from financing activities:

Proceeds from issuing stock	\$500,000	
Dividends on common	<u>(55,000)</u>	
Net cash provided by financing activities		<u>445,000</u>

Net increase in cash

\$655,000

Cash balance at January 1, 20X59,000**Cash balance at December 31, 20X5**\$664,000**Noncash investing/financing activities:**

Issued note payable for equipment	<u>\$ 80,000</u>
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Supplemental information:

Cash paid for interest	\$ 3,000
Cash paid for taxes	40,000

(a)

LIVE OAK CORPORATION
Cash Flow Statement Worksheet
For the Year Ending December 31, 20X5

	20X4	Debit	Credit	20X5
Debits				
Cash	\$ 9,000	(a) \$ 655,000		\$ 664,000
Accounts receivable	345,000	(b) 30,000		375,000
Inventory	160,000		(c) \$ 10,000	150,000
Prepaid expenses	25,000	(d) 10,000		35,000
Land	400,000		(e) 100,000	300,000
Building	700,000			700,000
Equipment	450,000	(f) 80,000		530,000
	<u>\$2,089,000</u>			<u>\$2,754,000</u>
Credits				
Accumulated depreciation	\$ 270,000		(g) 30,000	\$300,000
Accounts payable	119,000	(h) 7,000		112,000
Interest payable	-		(i) 2,000	2,000
Long-term note payable	-		(f) 80,000	80,000
Common stock (\$1 par)	600,000		(j) 100,000	700,000
Paid-in capital in excess of par	400,000		(j) 400,000	800,000
Retained earnings	700,000	(k) 55,000	(l) 115,000	760,000
	<u>\$2,089,000</u>			<u>\$2,754,000</u>
Cash flows from operating activities:				
Net income		(l) 115,000		
Depreciation expense		(g) 30,000		
Loss on sale of land		(e) 45,000		
Increase in accounts receivable			(b) 30,000	
Decrease in inventory		(c) 10,000		
Increase in prepaid expenses			(d) 10,000	
Decrease in accounts payable			(h) 7,000	
Increase in interest payable		(i) 2,000		
Cash flows from investing activities:				
Sale of land		(e) 55,000		
Cash flows from financing activities:				
Proceeds from issuing stock		(j) 500,000		
Dividends on common			(k) 55,000	
Noncash investing/financing activities:				
Issued note payable for equipment		(f) 80,000	(f) 80,000	
Increase in cash		-	(a) 655,000	
		<u>\$1,674,000</u>	<u>\$1,674,000</u>	

(b)

LIVE OAK CORPORATION Statement of Cash Flows For the Year Ending December 31, 20X5

Cash flows from operating activities:

Net income		\$ 115,000
Add (deduct) noncash effects on operating income		
Depreciation expense	\$ 30,000	
Loss on sale of land	45,000	
Increase in accounts receivable	(30,000)	
Decrease in inventory	10,000	
Increase in prepaid expenses	(10,000)	
Decrease in accounts payable	(7,000)	
Increase in interest payable	<u>2,000</u>	<u>40,000</u>
Net cash provided by operating activities		\$ 155,000

Cash flows from investing activities:

Sale of land	\$ 55,000	
Net cash provided by investing activities		55,000

Cash flows from financing activities:

Proceeds from issuing stock	\$ 500,000	
Dividends on common	<u>(55,000)</u>	
Net cash provided by financing activities		<u>445,000</u>

Net increase in cash

\$ 655,000

Cash balance at January 1, 20X59,000**Cash balance at December 31, 20X5**\$ 664,000**Noncash investing/financing activities:**

Issued note payable for equipment		<u>\$ 80,000</u>
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Supplemental information:

Cash paid for interest		\$ 3,000
Cash paid for taxes		40,000

The solution to this problem will vary based on the specific companies examined by the students. You are apt to find that more companies use the indirect approach, despite the FASB preference for the direct method. You are apt to find financial services companies clustered in the indirect group.

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Larry M. Walther, PH.D., CPA, CMA, is the EY Professor and Senior Associate Dean of the Jon M. Huntsman School of Business at Utah State University. Dr. Walther has authored numerous accounting textbooks and articles, and has served as director and/or consultant to a number of public and nonpublic companies. He obtained his PH.D. from Oklahoma State University and has public accounting experience with EY. He has recently served as president of the Federation of Schools of Accountancy and as a member of the Accounting Accreditation committee of the AACSB. Dr. Walther is the 2013 recipient of the prestigious Joseph A. Silvano Faculty Merit Award from the Federation of Schools of Accountancy.

This Financial Accounting Solutions Manual provides answers to all Basic and Involved Problems found in the textbook. The Financial Accounting textbook covers the accounting and reporting cycle, current assets, long-term assets, debt, equity, and cash flows. This material is typically covered in introductory accounting courses and is foundational for all accountants and business people.

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