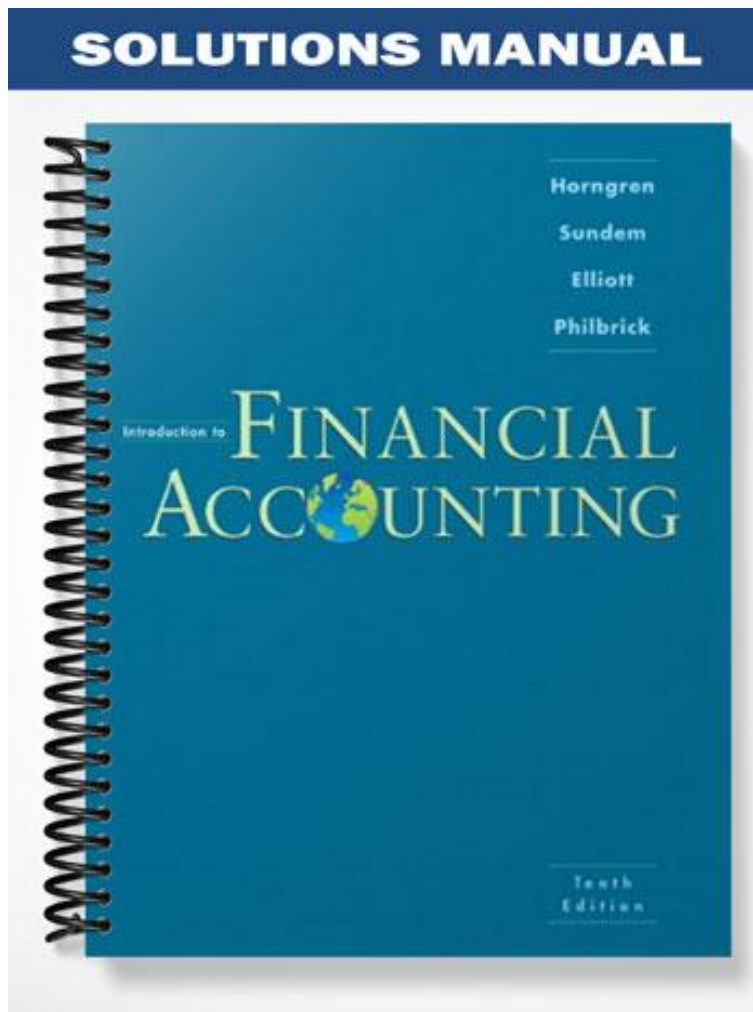


SOLUTIONS MANUAL



CHAPTER 2

COVERAGE OF LEARNING OBJECTIVES

<u>LEARNING OBJECTIVES</u>	<u>QUESTIONS</u>	<u>EXERCISES</u>	<u>PROBLEMS</u>	<u>OTHER</u>
LO1: Explain how accountants measure income.	1,2,3,4,26,27	32		67
LO2: Determine when a company should record revenue from a sale.	5,6	31	46,49,51,62	67
LO3: Use the concept of matching to record the expenses for a period.	7,8,9	30,34	45,47,48,50, 52,53,54	
LO4: Prepare an income statement and show how it is related to a balance sheet.	10,11,12	35,37,38,39, 40,41	48,50,52, 53,54,55, 56,57,58	65,66,67
LO5: Account for cash dividends and prepare a statement of stockholders' equity.	13,14,15,16,28	33,35,38, 39,40	54,57,58	65,66
LO6: Explain how the following concepts affect financial statements: entity, reliability, going concern, materiality, cost-benefit, and stable monetary unit.	17,18	41	59	
LO7: Compute and explain earnings per share, price-earnings ratio, dividend-yield ratio, and dividend-payout ratio.	19,20,21,22,29	43,44	60,61	64,66
LO8: Explain how accounting regulators trade off relevance and faithful representation in setting accounting standards (Appendix 2).	23,24,25		63	

CHAPTER 2

- 2-1 The operating cycle depends on the nature of the company. It is the time it takes the company to use cash to acquire goods and services, to sell those goods and services to customers, and to collect cash from the sales.
- 2-2 A fiscal year is the year used for financial reporting. It may be the same as a calendar year, but often it is not. Many companies elect to begin and end a fiscal year at the low point in their annual business activity.
- 2-3 Expenses are reductions in stockholders' equity; thus they may be accurately described as negative stockholders' equity accounts.
- 2-4 The cash basis fails to match accomplishments with efforts. In particular, the cash basis fails to match revenues and expenses properly. Inventory may be bought and paid for in one period, and sold in the second with the collection from customers in a third period. Accrual accounting matches revenue and cost of goods sold in the second period, although the cash outlay was in the first and the collection was in the third.
- 2-5 The two tests of revenue recognition are earning and realization (realized or realizable).
- 2-6 Revenue recognition is delayed when a company sells a magazine subscription because the company does not recognize revenue until it is earned by delivery of the magazines. Revenue recognition is also delayed if collection of the account receivable is not reasonably certain, which means that it is not realized or realizable. This may happen with speculative land sales.
- 2-7 Product costs are naturally linked to revenues, while period costs support a company's operations for a given period. Product costs become expenses when the company recognizes the related revenue. Period costs become expenses in the period in which they are incurred.
- 2-8 In theory, all expenses are goods and services that were first purchased as assets and that have now been utilized (used up) in the conduct of operations.
- 2-9 Managers acquire assets (goods and services) that are then either used instantaneously or at a later time. When the assets are used, they become expenses.
- 2-10 The balance sheet is a financial picture of a company at one point in time, like a snapshot. In contrast, an income statement shows activity over a period of time. It shows the series of events that take a company from one "snapshot" (balance sheet) to another, just as a moving picture shows movement from one position to the next.

- 2-11 Synonyms for the income statement are statement of earnings, statement of operations, profit and loss (P&L) statement, and operating statement. A major reason to learn accounting is to be able to read real financial statements. Such statements contain a variety of terms that may differ from the one first learned in an introductory accounting course. To be able to read and interpret the financial statements, users need to understand the terminology used, including synonyms used for the major accounting terms.
- 2-12 Managers are often optimistic and feel that things are bound to get better, so they do not like to report bad news. In addition, they may have bonuses or possible future promotions that depend on the financial reports, so they want the reports to be as good as possible. Finally, financial reports are often the “scorecard” for business success, and competitive managers want to report a high score.
- 2-13 Cash dividends are not necessary in the conduct of revenue-producing operations. Therefore, they are not expenses but are distributions of assets to owners. These distributions are made possible because of profitable operations, but are not part of the profitable operations.
- 2-14 Retained earnings is a stockholders’ equity account (a residual claim against assets) not an asset account.
- 2-15 The statement of stockholders’ equity provides information on why the stockholders’ equity accounts changed during a given period. The three main items that affect stockholders’ equity are net income, transactions with stockholders, and other comprehensive income—a catch-all category of all equity changes that are neither part of net income nor arise from transactions with owners.
- 2-16 No. An accounting entity can be a part of an organization, such as a division or department. It can also be an entire economy, such as national income accounting for the United States or another country.
- 2-17 Reliable data require convincing evidence that can be verified by independent auditors. Accountants must make sure that data reported in the financial statements can be measured with enough accuracy to be useful to users of the statements.
- 2-18 Materiality means that items that are not large enough to influence users’ decisions can be omitted from the financial statements. Thus, you do not find pencils or paper clips listed among a company’s assets. Cost-benefit means, for example, that if the cost of measuring an item is greater than the value from knowing it, it can be omitted. Thus, the financial statements of a division of a company may not include an expense for any portion of the company president’s salary, even though the president spends time overseeing the division’s activities. It would simply be too costly for the president to account for each minute spent on each different activity he undertakes and there is no benefit to attempting to allocate the president’s salary to individual divisions. However, in the corporate financial statements, the president’s salary would be treated as an operating cost assigned to the corporation as a whole.

- 2-19 No. One financial ratio, earnings per share (EPS), is presented on the income statement.
- 2-20 A high P-E ratio means that investors expect future earnings to significantly exceed current earnings. This is likely to be true for fast growing companies.
- 2-21 Two dividend ratios are as follows:
- Dividend-yield ratio—The amount of dividends paid per dollar invested in a stock at the current market price. The dividend-yield ratio is computed as $\text{Dividends per share} \div \text{Market price per share}$.
 - Dividend-payout ratio—The percentage of a company's earnings that is paid out in dividends. The dividend-payout ratio is computed as $\text{Dividends per share} \div \text{EPS}$.
- 2-22 No. A high dividend-payout ratio may be a bad sign. Companies with a high dividend-payout ratio tend to be slow-growing companies. They return a larger percentage of their income to shareholders because they do not have profitable investments for which to use the money.
- 2-23 Yes, accountants make many trade-offs between relevance and faithful representation. Although both are desirable, sometimes it is necessary to sacrifice some of one to gain much of the other. A major trade-off is between market values, which are often more relevant but may raise questions about faithful representation, and historical costs, which faithfully represent an event but may be less relevant.
- 2-24 The two main characteristics that make accounting information relevant are predictive value—meaning that it helps users form their expectations about the future—and confirmatory value—meaning that it can confirm or contradict existing expectations.
- 2-25 These criteria support faithful representation. They help ensure that information truly captures the economic substance of the transactions, events, or circumstances it describes.
- 2-26 A year is a long time to wait for new information about a company's performance. Preparing full financial statements is time consuming and costly. Quarterly financial disclosures are less complete than annual ones, but they represent a balanced answer to how often and how complete information should be. Within companies, managers get financial reports daily, weekly, or monthly depending on their needs. In different countries the tradition and the identity of investors have led to different customs. The United States relies on public ownership of companies and needs a system to keep large numbers of investors adequately informed. In countries where more of the ownership is closely held and more of the liabilities are bank financed, there is less need for frequent public disclosure.
- 2-27 The real choice is not between the cash basis and the accrual basis. We can have either one, but they provide very different information. The accrual-basis income statement is a better measure of overall performance over an accounting period. The cash-basis income statement provides better information about the risks of running out of cash. In the end, our choice between the two would depend on the question we are trying to answer.

2-28 The stock price should drop by the amount of the dividend per share. Just before the dividend, the stock is worth whatever it will be worth after the dividend plus the amount of the dividend. The chapter does not address details of exactly when rights to a dividend are created, when they accompany the sale of a share, or when they are retained by the seller. These issues are covered in the owners' equity chapter (Chapter 10).

2-29 Many investors would say that it does not matter because the security markets are efficient and the P-E ratios reflect the expected growth rates of future earnings for each firm. High-growth firms have high P-E ratios and low-growth firms have lower ones. Other investors would sort into two groups. Each group of investors believes the market tends to systematically misvalue firms, but they disagree on the nature of the market's "error." Value investors believe that the market undervalues good low-growth, low P-E firms and therefore buy them. Growth investors believe that the market undervalues good high-growth, high P-E firms and therefore buy them. Empirically, we can find periods of time when value investors have had better results from their investments than growth investors and vice versa. The bottom line is that investing based on P-E ratios alone is never a good idea, although they are an important descriptor of what the market perceptions of a company are at a moment in time.

2-30 (10 min.)

<u>Balance Sheet</u>	<u>Income Statement</u>
3. Accumulated deficit	1. Sales
4. Unexpired costs—asset	2. Net earnings
5. Prepaid expenses—asset	7. Statement of earnings
6. Accounts receivable—asset	8. Used up costs—expense
12. Retained earnings	9. Net profits
14. Statement of financial condition	10. Net income
16. Statement of financial position	11. Revenues
	13. Expenses—expense
	15. Statement of income
	17. Operating statement
	18. Cost of goods sold—expense

2-31 (5-10 min.)

The dealer is confused. As used by accountants, revenue is a gross amount earned from sales to customers. For example, sales and revenues are synonyms. Revenue is not "the bottom line" in accountants' minds. "The bottom line" is net income, that is, revenue minus all expenses. The dealer has \$280,000 revenue per month, not income.

Of course, many people use "bottom line" in a nontechnical sense to mean the important or significant result—the result that really matters. For example, "the bottom line is not how much you earn but how much you keep."

2-32 (10 min.)

1. On the cash basis, Yankton's net income would be as follows:

Revenue (cash received)	\$190,000*
Expenses	<u>175,000</u>
Net income	<u>\$15,000</u>

* Beginning receivables + Credit sales – Cash collections = Ending receivables

\$60,000 + 240,000 – Cash collections = \$110,000

\$60,000 + 240,000 – 110,000 = Cash collections = \$190,000

2. On an accrual basis, Yankton's net income would be as follows:

Revenue (sales)	\$240,000
Expenses	<u>175,000</u>
Net income	<u>\$ 65,000</u>

3. The \$65,000 net income on the accrual basis is generally the most relevant for assessing Yankton's performance. It gives credit for all \$240,000 of sales because, provided the accounts receivable are likely to be received (which is one criterion for the accrual recognition of revenue), Yankton has created value from all the sales, not just those for which cash has been received.

2-33 (15-20 min.)

The theme of this solution is that retained earnings is not a pot of cash awaiting distribution to stockholders.

1.	Cash	<u>\$1,000</u>	Paid-in capital	<u>\$1,000</u>
2.	Cash	\$ 400	Paid-in capital	<u>\$1,000</u>
	Inventory	<u>600</u>		
	Total	<u>\$1,000</u>		

Note in both Requirements 1 and 2 that the ownership equity is fundamentally a claim against the total assets (in the aggregate). For example, none of the shareholders have a specific claim on cash, and none have a specific claim on inventory. Instead, they all have an undivided claim against (or interest in) all of the assets.

3.	Cash	<u>\$1,150</u>	Paid-in capital	\$1,000
			Retained earnings	<u>150</u>
			Total	<u>\$1,150</u>

Retained Earnings is part of stockholders' equity. Even though Cash and Retained Earnings have increased by identical amounts compared to number 1, the retained earnings is fundamentally a general claim against total assets (just as paid-in capital is a general claim). Retained earnings is the net rise in ownership claim attributable to profitable operations. However, the assets themselves should not be confused with the claims against the assets.

4.	Cash	\$ 50	Paid-in capital	\$1,000
	(\$1,150 – \$300 – \$800)		Retained earnings	150
	Inventory	300		
	Equipment	<u>800</u>		
	Total	<u>\$1,150</u>	Total	<u>\$1,150</u>

The same explanation applies here as in Requirement 3. However, Transaction 4 should clarify the lack of a specific link between retained earnings (and paid-in capital) and any particular assets. The ownership claims are general, not specific.

5.	Cash	\$ 50	Account payable	\$ 500
	Inventory		Paid-in capital	1,000
	(\$300 + \$500)	800	Retained earnings	150
	Equipment	<u>800</u>		
	Total	<u>\$1,650</u>	Total	<u>\$1,650</u>

The meaning of retained earnings was explained above. Purchases on “open account” usually create a general liability; that is, the trade creditors usually hold only general claims against the total assets, not specific claims against particular assets (such as mortgages on buildings). In sum, both the creditors and the owners hold general claims against the assets. Of course, if the corporation is liquidated (all assets converted to cash to be distributed to claimants), the creditors' general claims must be satisfied before the owners get one dollar. Thus, the stockholders are said to have a residual claim or residual interest.

2-34 (15-25 min.)

See Exhibit 2-34 on the following page.

EXHIBIT 2–34 (Amounts are in thousands of dollars.)

GREENLEY COMPANY
Analysis of Transactions for July

	Assets					=	Liabilities	+	Stockholders' Equity
	<u>Cash</u>	+ <u>Prepaid Rent</u>	+ <u>Supplies</u>	+ <u>Unexpired Advertising</u>	+ <u>Unexpired Training</u>	=		+	<u>Retained Earnings</u>
a1.	– 18	+ 18				=			
a2.		– 3				=		–	3 (rent expense)
b1.	– 2		+ 2			=			
b2.			– 2			=		–	2 (supplies expense)
c1.	– 4			+ 4		=			
c2.				– 4		=		–	4 (advertising expense)
d1.	– 8				+ 8	=			
d2.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u>– 8</u>	=		–	<u>8</u> (training expense)

The steps shown capture the essence of what is happening. The problem is not explicit that all of the supplies are used during the month, so some students may omit b2. Similarly, some students may argue that c2 and d2 are not clear from the problem, because the advertisement and training might occur more than one month hence. The problem invites such discussion. You may wish to extend this example to reflect the more expedient procedure many accountants would use to record items that are immediately used up as expenses. For example, c and d might appear as follows:

c.	– 4		=		–	4 (advertising expense)
d.	<u>– 8</u>		=		–	<u>8</u> (training expense)

2-35 (15-20 min.)

1. First calculate stockholders' equity from the asset and liability amounts given.

	Assets	–	Liabilities	=	Stockholders' equity
Dec. 31:	£126,000	–	£55,000	=	£71,000
Jan. 1:	<u>110,000</u>	–	<u>50,000</u>	=	<u>60,000</u>
Change:	£ <u>16,000</u>	–	\$ <u>5,000</u>	=	£ <u>11,000</u>

Note that the £16,000 asset increase less the £5,000 liability increase yields the increase in stockholders' equity of £11,000.

2. We can use knowledge of what changes stockholders' equity to “deduce” the amount of net income. Net income increases stockholders' equity and dividends decrease stockholders' equity.

Beginning stockholders' equity + net income – dividends = ending stockholders' equity

$$\begin{aligned} \text{£60,000} + \text{net income} - \text{£5,000} &= \text{£71,000} \\ \text{net income} &= \text{£71,000} + \text{£5,000} - \text{£60,000} \\ &= \text{£16,000} \end{aligned}$$

3. Sales – Cost of goods sold – Operating expense = Net income
 £354,000 – Cost of goods sold – £200,000 = £16,000
 – Cost of goods sold = £16,000 + £200,000 – £354,000
 Cost of goods sold = £138,000

2-36 (15 min.)

The cash balance on June 30 was \$55,000, as shown in the balance sheet equation transactions in Exhibit 2-36 on the next page. The cash balance is the only beginning or ending balance that is available from the data.

2-37 (10-15 min.)

1. The name of the statement is antiquated. It should be titled income statement (or statement of earnings, statement of operations, or operating statement).
2. The line with the date should not be for an instant of time but for an indicated span of time: a year, a quarter, or a month ending on December 31, 20X0.
3. Increases in market values of land and buildings are not recognized under U. S. GAAP.
4. Dividends are not expenses and are not deducted before net profit is computed.
5. The appropriate deduction is the cost of goods sold, not the cost of the cars purchased.
6. The bottom line should be titled net income or net earnings.
7. The cost of the products sold is usually listed right after revenue, not near the bottom of the statement.
8. Although it is not the major point of the problem, the income statement has apparently omitted some expenses; for example, neither rent nor depreciation is shown. As a minimum, one or the other would ordinarily be included.

EXHIBIT 2-36

Piedmont Company
 Analysis of Transactions for June 20X1
 (In Thousands of Dollars)

Transactions	Assets				=	Liabilities and Stockholders' Equity		
	Cash	+ Accounts + Receivable	+ Merchandise + Inventory	+ Equipment	=	+ Accounts + Payable	+ Paid-in + Capital	+ Retained + Earnings
Balance, 6/1/X1	+ 15	?	?	?	=	?	?	?
a.	+ 75	-75			=			
b.	- 45				=	- 45		
c.			+ 18		=	+ 18		
d1.	+ 23	+ 30			=			+ 53 (sales revenue)
d2.			- 24		=			-24 (cost of goods sold expense)
e.				- 1	=			- 1 (depreciation expense)
f.	<u>- 13</u>	_____	_____	_____	=	_____	_____	<u>- 13</u> (dividends)
Balance, 6/30/X1	<u>+ 55</u>							

2-38 (5-10 min.) Amounts are in millions.

1.		
Revenues		\$3,275.4
Expenses		<u>3,462.1</u>
Net income (loss)		<u>\$ (186.7)</u>

Beginning retained earnings		\$250.5
+ Net income (loss)		(186.7)
– Dividends		<u>?</u>
Ending retained earnings		<u>\$ 63.8</u>

2. Dividends = \$63.8 – \$250.5 + \$186.7 = \$0

2-39 (20-30 min.) Amounts are in thousands of dollars.

The basic relations used in these problems are as follows:

$$\text{Revenues} - \text{Expenses} = \text{Net income}$$

$$\text{Assets} = \text{Liabilities} + \text{Stockholders' equity}$$

$$\text{Beginning retained earnings} + \text{Net income} - \text{Dividends} = \text{Ending retained earnings}$$

$$\text{Beginning paid-in-capital} + \text{additional investment} = \text{Ending paid-in-capital.}$$

1. $E = 165 - 125 = 40$
 $D = 30 + 40 = 70$
C = 15 because there were no additional investments by stockholders
 $A = 80 - 15 - 30 = 35$; or $80 - (15 + 30) = 35$
 $B = 95 - 15 - 70 = 10$; or $95 - (15 + 70) = 10$
2. $K = 20 + 200 = 220$
 $J = 60 + 20 - 7 = 73$
 $H = 10 + 40 = 50$
 $F = 60 + 10 + 90 = 160$
 $G = 280 - 73 - 50 = 157$
3. $P = 280 - 250 = 30$
 $Q = 120 + 30 - 130 = 20$
 $N = 85 - 35 = 50$
 $L = 105 + 50 + 120 = 275$
 $M = 95 + 85 + 130 = 310$

2-40 (10-15 min.)

This is straightforward. Computations are in millions of dollars:

$$A = 23,185 - 6,406 = 16,779$$

$$B = 11,203 - 646 = 10,557$$

$$C = 962 + 646 - 420 = 1,188$$

$$D = 17,890 + 7,069 = 24,959$$

2-41 (10 min.)

1. Companies choose what details to report based partly on materiality. A \$250,000 investment is definitely material to Dayton Service Stations. It is 27% of its total assets before the investment. However, it is not necessarily material to ExxonMobil—it is a very small fraction of 1% of its total assets and even a smaller fraction of its net income.
2. A key question a company must ask is whether a potential investor would find the information relevant for assessing the position and prospects of the company. The investment would certainly be an important factor in assessing Dayton Service Stations, but it would be so small as to be insignificant for assessing ExxonMobil.

2-42 (10-15 min.)

1. *Income statement* or *operating statement* is used instead of *statement of income and expenses*.
2. The end of the fiscal year is typically identified.
3. The terms *income* or *profit* are used rather than *surplus* (and *net income* rather than *net surplus*).
4. The term *loss* is used instead of *deficit*.
5. A profit-seeking organization would not receive a subsidy.

2-43 (10-15 min.)

This problem demonstrates how financial statements provide information for investor decisions. These ratios are compared with other companies in the industry and with the company's ratios through the years.

1. $EPS = £364,000,000 \div 1,611,000,000 = £0.226$
2. $P-E = £6.000 \div £0.226 = 26.5$
3. $Dividend\ Yield = (£295 \div 1,611) \div £6.000 = 3.1\%$
4. $Dividend\ Payout = (£295 \div 1,611) \div £0.226 = 81\%$

2-44 (10-15 min.)

1. $\$23,931,000,000 \div \$11.74 = 2,038,415,673$ average shares
2. $\$11.74 \times .2155 = \2.53 ; this is much less than the \$11.74 EPS.
3. (a) $\$2.53 \div \$76.50 = 3.3\%$ dividend yield
(b) $\$76.50 \div \$11.74 = 6.5$ P-E ratio

2-45 (20-30 min.)

1 and 2. See Exhibit 2-45 on the following page.

3.

R. J. SEN CORPORATION
Income Statement
For the Month Ended June 30, 20X0

<u>Accrual Basis</u>		<u>Cash Basis</u>	
Sales	\$115,000	Revenue (cash collected from customers*)	\$ 45,000
Deduct: Cost of goods sold	<u>60,000</u>	Expenses (cash disbursed for merchandise)	<u>85,000</u>
Net income	<u>\$ 55,000</u>	Net cash used by operating activities	<u>\$(40,000)</u>

*The entire revenue is cash sales. If any cash had been collected from credit customers during June, it would be added here.

The accrual basis provides a better measure of the economic accomplishments and efforts of the entity. The cash basis is inferior because it fails to recognize revenue as earned (the sales on credit), and it often recognizes expenses before they help generate revenues (for example, inventory acquired but not sold). Note that the June 28 acquisition of inventory on open account is irrelevant under both the accrual and cash basis.

EXHIBIT 2-45

R. J. SEN CORPORATION
 Analysis of Transactions for June, 20X0
 (In Thousands of Dollars)

Description of Transactions	Assets			=	Liabilities and Stockholders' Equity		
	Cash	+ Accounts Receivable	+ Inven- tories		Accounts Payable	+ Paid-in Capital	+ Retained Earnings
1. Original investment	+100			=		+100	
2. Acquisition of inventory	- 85		+85	=			
3a. Sales for cash and credit	+ 45	+70		=			+115 (sales revenue)
b. Cost of inventory sold			-60	=			- 60 (cost of goods sold expense)
4. Acquisition of inventory	<u>+ 60</u>	<u>+70</u>	<u>+34</u>	=	<u>+34</u>	<u>+100</u>	<u>+ 55</u>
	<div style="display: flex; justify-content: center; align-items: center;"> } 189 </div>				<div style="display: flex; justify-content: center; align-items: center;"> } 189 </div>		

R. J. SEN CORPORATION
 Balance Sheet
 June 30, 20X0

Assets		Liabilities and Stockholders' Equity	
		Liabilities:	
Cash	\$ 60,000	Accounts payable	\$ 34,000
Accounts receivable	70,000	Stockholders' equity:	
Merchandise inventory	59,000	Paid-in capital	\$100,000
		Retained earnings	<u>55,000</u>
Total	<u>\$189,000</u>	Total	<u>\$189,000</u>

2-46 (10-15 min.)

1. The first two items in the first sentence of the footnote (i.e., reference to persuasive evidence of an arrangement and delivery) relate to the earning of the revenue, and the last two (i.e., fee fixed and determinable and collectability probable) relate to its realization. Microsoft used to recognize revenue on products licensed to OEMs when the OEMs shipped product to customers, based on the assumption that Microsoft does not earn the revenue until the product actually is sent to a final customer. However, a change in licensing earlier this decade made it possible to regard revenue as earned when Microsoft ships product to the OEMs. The licensing agreement may have been changed to make the OEMs more responsible for the products after Microsoft ships them. Microsoft decided not to wait until the OEM delivers product to customers to regard the revenue as earned; instead, it is deemed earned at the time Microsoft ships it. This accelerates Microsoft's recognition of revenues.
2. Multi-year licensing agreements are treated as a magazine publisher would treat a subscription. The revenue is not earned until the customer uses the software for which it has a licensing agreement. Therefore, revenue recognition is spread over the life of the license.
3. Revenue related to games published by third parties is recognized when the games are manufactured, not when they are shipped to customers. Microsoft must believe that it sells the right to manufacture the games, and as soon as the manufacturing process is complete its revenue-earning process is complete.

2-47 (40-50 min.)

1. See Exhibit 2-47 on the following page.

Transactions 8 to 11 illustrate the culmination of the asset acquisition-asset expiration sequence: that is, most assets are “stored” as “unexpired” or “prepaid” costs that are expected to benefit future operations (inventory, prepaid rent, prepaid insurance and equipment). As these assets are “used up” or “expire,” they become expenses or “expired costs.”

2.

MONTERO COMPANY
Income Statement
For the Month Ended July 31, 20X2

Sales	\$205,000
Deduct expenses:	
Cost of goods sold	\$160,000
Rent	5,000
Depreciation	2,000
Insurance	<u>1,000</u>
Total expenses	<u>168,000</u>
Net income	<u>\$ 37,000</u>

3.

MONTERO COMPANY
Balance Sheet
July 31, 20X2

<u>Assets</u>		<u>Liabilities and Stockholders' Equity</u>	
Cash	\$ 126,000	Liabilities:	
Accounts receivable	140,000	Note payable	\$ 60,000
Merchandise inventory	65,000	Accounts payable	<u>110,000</u>
Prepaid rent	55,000	Total liabilities	<u>170,000</u>
Prepaid insurance	23,000	Stockholders' equity:	
Equipment	98,000	Paid-in capital	300,000
		Retained earnings	<u>37,000</u>
		Total stockholders' equity	<u>337,000</u>
Total assets	<u>\$507,000</u>	Total liab. and stk. equity	<u>\$507,000</u>

EXHIBIT 2-47

MONTERO COMPANY
 Analysis of Transactions for July, 20X0
 (In Thousands of Dollars)

Trans- action	Assets						=	Liabilities and Stockholder's Equity			
	Cash	Accounts Receiv- + able	Mer- chandise + Inventory	Pre- Paid +Rent	Prepaid Insur- + ance	Equip- + ment	=	Note Payable	Accounts + Payable	Paid-in + Capital	+ Retained earnings
1.	+300						=			+300	
2.	- 60			+60			=				
3.	- 40					+100	=	+60			
4.	- 24				+24		=				
5.	- 35		+35				=				
6.			+190				=		+190		
7.	+30	+175					=				+205 (sales revenue)
8.			-160				=				-160 (cost of goods)
9.				- 5			=				- 5 (rent expense)
10.						- 2	=				- 2 (depreciation expense)
11.					- 1		=				- 1 (insurance expense)
12.	+35	- 35					=				
13.	<u>-80</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	=	<u> </u>	<u>- 80</u>	<u> </u>	<u> </u>
Balances											
7/31/X2	<u>+126</u>	<u>+140</u>	<u>+65</u>	<u>+55</u>	<u>+23</u>	<u>+98</u>	=	<u>+60</u>	<u>+110</u>	<u>+300</u>	<u>+37</u>
	} 507							} 507			

2-48 (35-40 min.)

1. See Exhibit 2-48 on the following page.

2. **BEKELE COMPANY**
Balance Sheet
April 30, 20X2

<u>Assets</u>		<u>Liabilities and Stockholders' Equity</u>	
Cash	\$106,000	Liabilities:	
Accounts receivable	57,000	Note payable	\$ 24,000
Merchandise inventory	43,000	Accounts payable	<u>5,000</u>
Prepaid rent	4,000	Total liabilities	<u>29,000</u>
Equipment and fixtures	35,000	Stockholders' equity:	
		Paid-in capital	\$200,000
		Retained earnings	<u>16,000</u>
		Total stk. equity	<u>\$216,000</u>
Total	<u>\$245,000</u>	Total	<u>\$245,000</u>

BEKELE COMPANY
Income Statement
For the Month Ended April 30, 20X0

Sales revenue		\$100,000
Deduct expenses:		
Cost of goods sold	\$37,000	
Wages and sales commissions	34,000	
Rent (\$2,000 + \$10,000)	12,000	
Depreciation	<u>1,000</u>	
Total expenses		<u>84,000</u>
Net Income		<u>\$16,000</u>

3. Most businesses tend to have net losses during their infant months, so Bekele's ability to show a net income for April is impressive. Indeed, the rate of return on beginning investment is $(\$16,000 \div \$200,000) = 8\%$ per month, or 96% per year. Bekele also has high stockholders' equity compared to its liabilities, quite a high cash balance, and flexibility because most assets are either in cash or will be turned into cash relatively quickly. Many other points can be raised, including the problem of maintaining an "optimum" cash balance so that creditors can be paid neither too quickly nor too slowly. See the next solution also.

EXHIBIT 2-48

1.

BEKELE COMPANY
 Analysis of Transactions for April 20X0
 (In Thousands of Dollars)

Description	Assets					=	Liabilities + Stockholders' Equity			
	Cash	+ Accounts Receiv- able	+ Mer- chandise Inventory	+ Pre- paid Rent	+ Equip- ment & Fixtures	=	Note Pay- able	+ Accounts Pay- able	+ Paid- in Capital	+ Retained Earnings
1. Incorporation	+200					=			+200	
2. Purchased merchandise	- 45		+45			=				
3. Purchased merchandise			+35			=		+35		
4a. Sales	+ 25	+75				=				+ 100 (sales revenue)
b. Cost of inventory sold			-37			=				- 37 (cost of goods sold expense)
5. Collections	+ 18	-18				=				
6. Disbursements to trade creditors	- 30					=		-30		
7. Purchased equipt.	- 12				+36	=	+24			
8. Prepaid rent	- 6			+6		=				
9. Rent expense	- 10*					=				- 10* (rent expense)
10. Wages, etc.	- 34					=				- 34 (wages expense)
11. Depreciation					- 1	=				- 1 (deprec. expense)
12. Rent expense	_____	_____	_____	-2	_____	=	_____	_____	_____	- 2 (rent expense)
Balances, April 30 20X0	<u>+106</u>	<u>+57</u>	<u>+43</u>	<u>+4</u>	<u>+35</u>	=	<u>+24</u>	<u>+ 5</u>	<u>+200</u>	<u>+16</u>

* (10% × \$100,000) = \$10,000.

2-49 (5-10 min.)

Cash Inflows:		
Cash sales		\$ 25,000
Cash collected from credit customers		<u>18,000</u>
Cash disbursements:*		
Disbursements for merchandise	\$(75,000)**	43,000
Disbursements for rent, wages, and sales commissions	<u>(50,000)***</u>	
Total cash disbursements		<u>125,000</u>
Net cash outflow for operations		<u>\$(82,000)</u>

*Some students will also include the \$12,000 cash paid to purchase equipment as a cash outflow. This is consistent with a strict cash-basis of accounting.

**\$45,000 + \$30,000

*** \$6,000 + \$10,000 + \$34,000

The accrual basis provides a more accurate measure of economic performance. If the two revenue recognition criteria are met (earning and realization), the \$100,000 measure of revenue on the accrual basis is preferred to the \$43,000 measure of cash receipts for measuring economic performance, and the \$84,000 measure of costs is preferred to the \$125,000 measure of cash disbursements. The \$16,000 net income is a more accurate measure of total accomplishments *for April* than is the \$82,000 net cash outflow for operations.

2-50 (20-35 min.)

1. See Exhibit 2-50 on the following page.

2.

H. J. HEINZ COMPANY
Statement of Earnings
For the Month Ended August 31, 2009
(In Millions)

Sales		\$11
Deduct expenses:		
Cost of goods sold	\$4	
Selling and administrative expenses	1	
Rent and insurance	1	
Depreciation	<u>1</u>	<u>7</u>
Net earnings		<u>\$ 4</u>

H. J. HEINZ COMPANY
Balance Sheet
August 31, 2009
(In Millions)

Assets		Liabilities and Stockholders' Equity	
Cash	\$ 542	Liabilities:	
Receivables	1,055	Accounts payable	\$ 1,086
Inventories	1,336	Other liabilities	<u>7,363</u> \$ 8,449
Other assets	5,154	Stockholders' equity	<u>1,706</u>
Property, plant and equip.	<u>2,068</u>	Total	<u>\$10,155</u>
Total	<u>\$10,155</u>		

EXHIBIT 2-50

H. J. HEINZ COMPANY
 Analysis of Transactions for August, 2009
 (In Millions of Dollars)

Transactions	Assets					=	Liabilities + Shareholders' Equity		
	Cash	+ Receivables	+ Inventories	+ Other Assets	+ Property, Plant, Equipment	=	Accounts Payable	+ Other Liabilities	+ Shareholder's Equity
Bal. 7/31	+551	+1,052	+1,334	+5,143	+2,069	=	+1,084	+7,363	+1,702
1a.	+ 3	+ 8				=			+ 11 (revenue)
1b.			- 4			=			- 4 (expense)
2.			+ 6			=	+ 6		
3.	+ 5	- 5				=			
4.	- 12			+ 12		=			
5.	- 4					=	-4		
6.	- 1					=			- 1 (expense)
7.				- 1		=			- 1 (expense)
8.					- 1	=			- 1 (expense)
Bal. 8/31	<u>+542</u>	+ <u>1,055</u>	<u>+1,336</u>	<u>+5,154</u>	<u>+2,068</u>	=	<u>+1,086</u>	<u>+7,363</u>	<u>+1,706</u>
			<u>10,155</u>					<u>10,155</u>	

2-51 (5-10 min.) Amounts are in millions.

Cash Inflows:		
Cash sales		\$ 3
Collections from credit customers		<u>5</u>
		8
Cash disbursements:		
Payments on account payable	\$ (4)	
Disbursements to prepay rent and insurance	(12)	
Disbursements for selling and administrative expenses	<u>(1)</u>	
Total cash disbursements		<u>(17)</u>
Net cash outflow		<u>\$ (9)</u>

The accrual basis provides a more accurate measure of economic performance. If the two revenue recognition criteria are met (earning and realization), the \$11 million measure of revenue on the accrual basis is preferred to the \$8 million measure of cash receipts for measuring economic performance, and the \$7 million measure of costs is preferred to the \$17 million measure of cash disbursements. The \$4 million net income is a more accurate measure of total accomplishments *for August* than is the \$9 million net cash outflow.

2-52 (25-40 min.)

1. See Exhibit 2-50 on the following page.

2.

NESTLÉ S.A.
Statement of Earnings
For the Month of January 2009
(In Millions)

Sales		CHF750
Deduct expenses:		
Cost of goods sold	CHF500	
Selling and administrative expenses	290	
Depreciation	<u>30</u>	
Total expenses		<u>820</u>
Net Loss		<u>CHF (70)</u>

NESTLÉ S.A.
Balance Sheet
January 31, 2009
(In Millions)

Assets		Liabilities and Stockholders' Equity	
Cash	CHF 5,541	Accounts payable	CHF 12,608
Receivables	13,422	Income taxes payable	0
Inventories	8,842	Other liabilities	37,867
Property, plant, and equipment	21,067	Stockholders' equity	54,846
Other assets	<u>56,449</u>		
Total	<u>CHF105,321</u>	Total	<u>CHF105,321</u>

EXHIBIT 2-52

NESTLÉ S.A.
 Analysis of Transactions for January 2009
 (In Millions of CHF)

Description	Assets					=	Liabilities and Owners' Equity			
	Cash	Receiv- + ables	Inven- + tories	Property, Plant, & + Equip.	Other + Assets	=	Accts. Pay.	Inc. Taxes + Pay.	Other Liabi- + lities	Owners' Equity
Balances, January 1	+5,835	+13,442	+9,342	+21,097	+56,499	=	+12,608	+824	+37,867	+54,916
1a. Sales	+ 350	+ 400				=				+ 750 (sales revenue)
1b. Cost of inventory sold			- 500			=				- 500 (cost of goods sold expense)
2. Collection of receivables	+ 420	- 420				=				
3. Depreciation expense				- 30		=				- 30 (depreciation expense)
4. Selling and administrative expense	- 240					=				(selling & adm. exp.)
5. Selling and administrative expense					-50	=				(selling & adm. exp.)
6. Paid income taxes	- 824					=	-824			
Balances, January 31	<u>+5,541</u>	<u>+13,422</u>	<u>+8,842</u>	<u>+21,067</u>	<u>+56,449</u>	=	<u>+12,608</u>	<u>+ 0</u>	<u>+37,867</u>	<u>+54,846</u>
	105,321						105,321			

2-53 (35-45 min.)

1. LUDMILLA CORPORATION
Income Statement
For the Year Ended December 31, 20X2

Sales		\$285,000
Deduct expenses:		
Cost of good sold	\$157,000	
Salaries	86,000	
Rent	18,000 ^a	
Advertising	9,300	
Utilities	5,000	
Depreciation	5,000	
Insurance	1,000 ^b	
Office supplies	<u>1,200</u>	<u>282,500</u>
Net Income		<u>\$ 2,500</u>

^a (\$19,500 – \$1,500) = \$18,000; \$1,500 is prepaid rent.

^b (\$ 1,800 – \$800) = \$ 1,000; \$800 is unexpired insurance.

2. LUDMILLA CORPORATION
Statement of Retained earnings
For the Year Ended December 31, 20X2

Retained earnings, January 1, 20X2	\$18,000
Net income for 20X2	+ 2,500
Cash dividends declared	<u>– 4,000</u>
Retained earnings, December 31, 20X2	<u>\$16,500</u>

3.

LUDMILLA CORPORATION

Balance Sheet
December 31, 20X2

Assets		Liabilities and Stockholders' Equity	
Cash	\$14,800	Liabilities:	
Accounts receivable	31,400	Accounts payable	\$ 14,000
Notes receivable	2,500	Notes payable	7,000
Merchandise inventory	61,000	Dividends payable	<u>4,000^e</u>
		Total liabilities	<u>\$ 25,000</u>
Prepaid rent	1,500	Stockholders' equity:	
Office supplies inventory	800 ^d	Paid-in capital	\$100,000
Unexpired insurance	800	Retained earnings	<u>16,500</u>
Trucks	<u>28,700^c</u>	Total stockholders' equity	<u>\$116,500</u>
Total	<u>\$141,500</u>	Total	<u>\$141,500</u>

^c $(\$33,700 - \$5,000) = \$28,700$

^d $(\$ 2,000 - \$1,200) = \$800$

^e \$4,000 dividend declared

Note that the \$8,200 net income reported by the office manager is incorrect. There is a net income of \$2,500, as shown in requirement 1. Reconciliation: $(\$8,200 - \$2,500) = \$5,700$ difference, accounted for by changed expense items as follows: $[\$1,000 (b) - \$1,500 (a) + \$5,000 (c) + \$1,200 (d)] = \$5,700$.

2-54 (50-75 min.)

1. See Exhibit 2-54 on the following page.

2.

GECKO TOY COMPANY
Balance Sheet
December 31, 20X1

Assets		Liabilities and Stockholders' Equity	
Cash	\$ 496,000	Liabilities:	
Accounts receivable	650,000	Accounts payable	\$ 900,000
Merchandise inventory	560,000	Stockholders' equity:	
Prepaid rent	56,000	Paid-in capital	360,000
Equipment	80,000	Retained earnings	582,000
		Total stockholders' equity	942,000
Total	<u>\$1,842,000</u>	Total	<u>\$1,842,000</u>

GECKO TOY COMPANY
Income Statement
For the Year Ended December 31, 20X1

Sales		\$1,700,000
Deduct expenses:		
Cost of goods sold	\$1,300,000	
Rent	68,000*	
Depreciation	20,000	
Wages	200,000	
Miscellaneous	70,000	
Total expenses		<u>1,658,000</u>
Net income		<u>\$ 42,000</u>

*\$40,000 for first 8 months plus \$28,000 for next 4 months = \$68,000. Note that the beginning balance of prepaid rent of \$40,000 related to the first 8 months of the year and, therefore, implies a monthly rate of \$5,000 and annual rent of \$60,000. The payment in 20X1 of \$84,000 represents an increase in the rental.

EXHIBIT 2-54

GECKO TOY COMPANY
Analysis of Transaction for 20X1
(In Thousands of Dollars)

Transactions	Assets					=	Liabilities and Stockholders' Equity		
	Cash	+ Accounts + Receivable	+ Merchandise + Inventory	+ Prepaid + Rent	+ Equipment	=	Accounts + Payable	Paid-in + Capital	Retained + Earnings
Bal. 12/31/X0	+ 400	+ 400	+ 860	+40	+100	=	+ 800	+360	+ 640
a.			+1,000			=	+1,000		
b.	+ 200	+1,500				=			+1,700 (sales revenue)
c.			-1,300			=			-1,300 (cost of goods sold expense)
d1.				-40		=			- 40 (rent expense)
d2.	- 84			+84		=			
d3.*				-28		=			- 28 (rent expense)
e.					-20	=			- 20 (depreciation expense)
f.	+1,250	-1,250				=			
g.	- 200					=			- 200 (wages exp.)
h.	- 70					=			- 70 (misc. exp.)
i.	- 900					=	- 900		
j.	- 100					=			- 100 (dividends)**
Bal. 12/31/X1	<u>+ 496</u>	<u>+ 650</u>	<u>+560</u>	<u>+56</u>	<u>+80</u>	=	<u>+ 900</u>	<u>+360</u>	<u>+ 582</u>

* All rent effects for the entire year are shown in three steps as part of the analysis of Transaction d. There are alternative ways of handling this transaction, but the ultimate effects on the accounts would be identical. For instance, Transaction d3 might be shown as a final separate entry after Transaction i or j. The new lease is at a rate of $(\$84 \div 12) = \7 per month and four months elapse in 20X1.

** Note that the amount of cash dividends is usually tied to the amount of net income, but not necessarily. The amount and timing of dividends is a separate decision by the board of directors.

GECKO TOY COMPANY
Statement of Stockholders' Equity (Retained Earnings Column Only)
For the Year Ended December 31, 20X1

Retained earnings, December 31, 20X0	\$640,000
Net income for the year 20X1	<u>42,000</u>
Total	\$682,000
Cash dividends declared	<u>(100,000)</u>
Retained earnings, December 31, 20X1	<u>\$582,000</u>

3. Only the balance sheet would be affected. Cash would be \$100,000 higher and a \$100,000 liability — Dividends Payable — would be created. Both accounts would be decreased by \$100,000 when the dividend disbursement is made on January 31.

We usually point out that a stockholder is simultaneously a creditor and an owner the minute the board of directors declares a dividend. Of course, the entity is never liable for a dividend until such a declaration occurs.

2-55 (10-15 min.)

This is straightforward. All computations are in millions of dollars:

$$A = [5,600 - (201 + 914)] = 4,485$$

$$B = (8,573 - 8,172) = 401$$

$$C = (201 + 401 - 379) = 223$$

$$D = (5,661 - 223 - 987) = 4,451$$

2-56 (15-25 min.)

Entity	Assets			=	Liab. + SE
	Cash	Other Assets*	Trucks		Liabilities*
1. Fidelity	-150,000	+ 150,000		=	
Stratton	+150,000			=	+150,000
2. Fidelity	+ 10,000	- 10,000		=	
Stratton	- 10,000			=	- 10,000
3. Newsweek	+ 90			=	+ 90
Silverton	- 90	+ 90		=	
4. Postal Serv. (millions)	- 10		+10	=	
FedEx (millions)	+ 10		-10	=	
5. U.S. Treas.	+100,000			=	+100,000
Lockheed	-100,000	+100,000		=	
6. Safeway	+ 18			=	+18
Simon	- 18	+ 18		=	
7. Office Depot	+100	- 100		=	
Arrow	-100			=	-100
8. American Express	+1,000			=	+1,000
Spence	-1,000	+1,000**		=	
9. Bank	+600			=	+600
Hoskins	-600			=	
	+600***				
10. United	+400			=	+400
Tanlu	-400	+400		=	

* Other assets are primarily receivables, and liabilities are primarily payables. Each entity might use highly specific descriptions of the type of assets or liabilities. For example, Safeway's use of "cash deposits" implies amounts payable when bottles are returned. Similarly, United's collection of cash for tickets in advance and Newsweek's collection of a subscription collected in advance are payables that must be extinguished either by cash refunds or by supplying the flight services and magazines.

** Travelers checks may be listed as cash or a "cash equivalent."

*** Hoskins (and nearly everyone) would ordinarily label a cash deposit in a bank as Cash or Cash in Bank. Strictly speaking, Cash in Bank is really a form of receivable from a bank; however, it is almost never labeled as such.

2-57 (20-25 min.)

The following statements follow the format used by McDonald's. Obviously, various alternative formats are possible:

1. (a) **McDONALD'S CORPORATION**
Consolidated Statement of Income
For the Year Ended December 31, 2008
(In Millions of Dollars)

Revenues	<u>\$23,522</u>
Deduct expenses:	
Food and paper expense	5,586
Payroll and employee benefits	4,300
Selling, general, and administrative expenses	2,356
Occupancy and other operating expenses	3,607
Franchise restaurants—occupancy expenses	1,230
Interest and other non-operating expenses	<u>285</u>
Total expenses	<u>17,364</u>
Income before provision for income taxes*	6,158
Provision for income taxes*	<u>1,845</u>
Net income	<u>\$ 4,313</u>

* This is the nomenclature used by McDonald's.

(b) **McDONALD'S CORPORATION**
Statement of Stockholders' Equity (Retained Earnings Column)
For the Year Ended December 31, 2008
(In Millions of Dollars)

Retained earnings, December 31, 2007	\$26,461
Net income for the year	4,313
Cash dividends	<u>(1,821)</u>
Retained earnings, December 31, 2008	<u>\$28,953</u>

2. The cash dividend is small compared to the amounts for net income and retained earnings. It is 42% of the net income. This conservative dividend policy may reflect management's intention to finance growth mainly from internal sources.

2-58 (15-25 min.)

The following approximates Dell's statements. Student may use other acceptable formats. Cash, Accounts Payable, and Total Assets are balance sheet accounts.

1.

DELL INC.
Statement of Income
For the Year Ended January 30, 2009
(In Millions)

Total revenues	<u>\$61,101</u>
Costs and expenses:	
Cost of revenues *	50,144
Other expenses	<u>7,633</u>
Income before income taxes	3,324
Provision for income taxes	<u>846</u>
Net earnings	<u>\$ 2,478</u>

*Also called Cost of Goods Sold

2.

DELL INC.
Statement of Retained Earnings
For the Year Ended January 30, 2009
(In Millions)

Retained earnings, February 1, 2008	\$ 18,199
Net earnings	2,478
Dividends declared	<u>0</u>
Retained earnings, January 30, 2009	<u>\$20,677</u>

2-59 (10 min.)

Because Balkan Airlines is committed to selling its assets and using the proceeds to pay off creditors, the appropriate valuation of its assets is the market price Balkan expects to receive for them. Because Balkan's aircraft will no longer continue to be used in the way anticipated when they were purchased, their original purchase price less accumulated depreciation is no longer relevant. Similarly, the book value of any other fixed assets held by Balkan will no longer be meaningful. Rather, all assets should be a function of their current market value.

An operating airline would continue to use the book value, original cost less accumulated depreciation, for its depreciable assets and would continue to value other assets at their existing book values. In contrast, an airline in liquidation should use the current market value for its assets.

2-60 (20-35 min.)

The solutions are underlined in the following table:

1. Company	Per-share Data			Ratios and Percentages		
	Price	Earnings	Dividends	P-E	Div. Yield	Div. Payout
Federal Express	<u>\$20.02</u>	\$3.64	<u>\$.30</u>	5.5	<u>1.5%</u>	8.2%
UPS	\$56.11	<u>\$2.95</u>	<u>\$1.80</u>	19.0	3.2%	<u>61%</u>
Deutsche Post	€23.51	€1.15	<u>€ .90</u>	<u>20.4</u>	<u>3.8%</u>	78%

Computations follow:

FedEx:

$$\begin{aligned} \text{Price} &= (\$3.64 \times 5.5) = \$20.02 \text{ per share} \\ \text{Dividends} &= (\$3.64 \times .082) = \$.30 \text{ per share} \\ \text{Dividend-yield:} &= (\$.30 \div \$20.02) = 1.5\% \end{aligned}$$

UPS:

$$\begin{aligned} \text{Earnings} &= (\$56.11 \div 19.0) = \$2.95 \text{ per share} \\ \text{Dividend} &= (\$56.11 \times .032) = \$1.80 \text{ per share} \\ \text{Dividend-payout} &= (\$1.80 \div \$2.95) = 61\% \end{aligned}$$

Deutsche Post:

$$\begin{aligned} \text{Dividends} &= (.78 \times \text{€}1.15) = \text{€} 0.90 \text{ per share} \\ \text{P-E} &= (\text{€}23.51 \div \text{€}1.15) = 20.4 \\ \text{Dividend-yield} &= (\text{€}0.90 \div \text{€}23.51) = 3.8\% \end{aligned}$$

Deutsche had the highest P-E, dividend-yield, and dividend-payout. FedEx has the lowest ratio for all three items. One interpretation of this is that neither FedEx nor investors expect the company to maintain its current EPS level.

2. This information is not sufficient to answer these questions. How rapidly are prices and earnings growing? Value investors who look for “under-priced” stocks might be attracted to FedEx’s low P-E. Others might like the low dividend payout for FedEx in the belief that it means FedEx is reinvesting all of its earnings profitably. The case for Deutsche Post would rest on its high P-E as a proxy for perceived growth.

2-61 (20-30 min.)

The solutions are underlined:

1. Company	Per-share Data			Ratios and Percentages		
	Price	Earnings	Dividends	P-E	Div. Yield	Div. Payout
Royal Dutch Shell	\$18.75	\$4.27	\$1.56	<u>4.4</u>	<u>8.3%</u>	<u>36.5%</u>
ExxonMobil	\$79.83	<u>\$8.77</u>	<u>\$1.68</u>	9.1	2.1%	<u>19.2%</u>
Chevron	<u>\$75.95</u>	\$2.45	<u>\$0.65</u>	31.0	<u>0.9%</u>	26.5%

Computations follow:

Royal Dutch Shell:

$$\begin{aligned} \text{P-E} &= (\$18.75 \div \$4.27) = 4.4 \\ \text{Dividend-yield} &= (\$1.56 \div \$18.75) = 8.3\% \\ \text{Dividend-payout} &= (\$1.56 \div \$4.27) = 36.5\% \end{aligned}$$

ExxonMobil:

$$\begin{aligned} \text{Earnings} &= (\$79.83 \div 9.1) = \$8.77 \\ \text{Dividends} &= (\$79.83 \times .021) = \$1.68 \\ \text{Dividend-payout} &= (\$1.68 \div \$8.77) = 19.2\% \end{aligned}$$

ChevronTexaco:

$$\begin{aligned} \text{Price} &= (31.0 \times \$2.45) = \$75.95 \\ \text{Dividend} &= (.265 \times \$2.45) = \$0.65 \\ \text{Dividend-yield} &= (\$0.65 \div \$75.95) = 0.9\% \end{aligned}$$

Royal Dutch Shell has the highest dividend-payout and dividend-yield ratios, as well as the lowest P-E ratio.

2. This information is not sufficient to answer questions about investments. How rapidly are prices and earnings growing? Value investors who look for “under-priced” stocks might be attracted to Royal Dutch Shell’s low P-E. Others might like the low dividend payout for ExxonMobil in the belief that it means ExxonMobil is reinvesting more of its earnings profitably. The case for Chevron would rest on its high P-E as a proxy for perceived growth.

2-62 (10 min.)

The revenue recognition practices of KSR were much too aggressive. Generally Accepted Accounting Principles (GAAP) require the risks and benefits of ownership to pass to the buyer and the collection of cash to be reasonably certain before revenue is recorded. Often these conditions are satisfied at the time of shipment of the product. However, for KSR this was not the case. When a sale is contingent on the winning of a grant, or depends on the future delivery of upgrades, revenue should not be recorded. Similarly, if the sale depends on the actions of a third party who has no obligation to the purchaser, there is too much uncertainty to record the revenue.

KSR had very good reason to believe that the shipment of computers was not sufficient for the recognition of revenues. By aggressively recording the revenue, KSR violated ethical standards that require adherence to GAAP and full and accurate disclosures of financial information. The drop in KSR's stock price after complete disclosure was made provided evidence that the original information was misleading to investors.

KSR may also have violated the law. A series of shareholder suits were filed alleging that KSR executives either knew or should have known that the company's revenue recognition policies were inappropriate. In November of 1993 the company's auditor withdrew its report on KSR's 1992 financial statements.

Beyond the problems of revenue recognition, there were charges of insider trading by top executives. President and CEO Henry Burkhardt III confirmed Wall Street analysts' forecast of high earnings and two weeks later sold \$1 million of his KSR stock. In November of 1993 Mr. Burkhardt and other responsible executives were fired.

2-63 (10 min.)

1. The timber and timberlands book value is a faithful representation of the cost of the timber and timberlands. However, that cost may not be relevant for decisions today. Land that Plum Creek bought many years ago may have increased greatly in value, but such increases are not reflected in the cost-based book value.
2. Adding together the book value of the timber and timberlands (that may have little relationship to today's value of the assets) with the cash and inventory values (that are at or close to today's value) is like adding apples and oranges. Using the dollar (or any currency) as the yardstick for value has the problem that dollars today do not have the same purchasing power as dollars years ago, so adding today's dollars to yesterday's dollars can be difficult to interpret.
3. Timber and timberlands could be measured at market value. This would most likely be more relevant, but there may be wide disagreement about the correct market value, meaning that the measure of market value may not faithfully represent the underlying value of the timber and timberlands. Companies must often make trade-offs between relevant data and data that faithfully represent the phenomenon measured.

2-64 (60 min. or more)

This exercise has three main purposes:

1. Learn how to find financial information about companies.
2. Compute ratios.
3. Determine reasons for ratios to vary across companies.

We believe the third purpose is especially important. Finding information and computing ratios is mechanical, but finding reasons for variations in ratios across companies requires much thought and reasoning. Doing this in teams is extremely helpful; ideas can build on one another, and students can see how other students think through the issue. It also allows students with more experience and knowledge of business practices to share this knowledge with those with less experience.

If time permits, we suggest discussing the second requirement in class. Groups will find it informative to learn the conclusions reached by other groups.

2-65 (15-30 min.)

Each solution will be unique and will change each year. The purpose of this problem is to focus on the income statement and statement of retained earnings.

2-66 (10-15 min.) (In millions except per share amounts)

1. Net revenues = \$9,774.6; net earnings = \$390.8.
2. Starbucks' net income increased its retained earnings by \$390.8. It paid no dividends, so there was no reduction in retained earnings due to dividends.
3. Earnings per share = $(\$390.8 \div 738.7) = \0.53 per share

This amount is shown at the bottom of Starbucks' income statement. Also shown is diluted earnings per share, which is beyond the scope of our discussion at this point.

$$\text{Price-Earnings ratio} = (\$19.83 \div \$0.53) = 37.4$$

4. The Starbucks P-E ratio is more than double the average P-E in the market. Thus, investors must think that Starbucks' income will grow quite quickly in the future.

2-67 (30-40 min.)

NOTE TO INSTRUCTOR: This solution is based on the web site as it was in early 2010 based on the 2009 annual report. Be sure to examine the current web site before assigning this problem, as the information there may have changed.

1. Time Warner recognizes revenues from magazine subscriptions on the magazine's cover date. Subscriptions paid in advance are put into a deferred revenue account. Revenue from magazines sold by the copy in stores and newsstands is recognized when shipped, less an estimated amount for returns.
2. Unearned revenue (or deferred revenue) represents amounts received in advance from customers. Time Warner has not yet provided goods or services to customers. Therefore, they have a liability. The dollar amount of unearned revenue is \$786 million included with current liabilities and another \$269 million included with long-term liabilities. This means that most subscriptions will be fulfilled in the next year, but there are some subscriptions that are for more than one year. These accounts are found on the balance sheet.
3. Revenue categories are subscription, advertising, content, and other. Total revenue is \$25,785 million; total expenses are \$23,268 million, resulting in a net income of \$2,517.
4. Like all large companies, Time Warner uses the accrual method. This is perhaps most clear from the terms Receivables and Prepaid expenses among the assets and Accounts payable, Deferred revenue, and Accrued liabilities among the liabilities on the balance sheet. It is also evident from the use of "revenues" rather than cash receipts and "expenses" rather than cash outlays on the income statement.
6. Time Warner is clearly a profit-seeking organization. This is evident from the income statement, where it shows not only net income (loss) but also income per common share. On the balance sheet, it is evident from the shareholders' equity section. It is also clear from the presence of income taxes.

