

***Accounting Tools for Business Decision Making 6th  
edition Kimmel Solutions Manual***

SKU: 9781119191674-SOLUTIONS

# CHAPTER 2

## A Further Look at Financial Statements

### Learning Objectives

1. Identify the sections of a classified balance sheet.
2. Use ratios to evaluate a company's profitability, liquidity, and solvency.
3. Discuss financial reporting concepts.

### Summary of Questions by Learning Objectives and Bloom's Taxonomy

| Item                    | LO | BT | Item | LO | BT | Item | LO   | BT | Item | LO | BT | Item | LO | BT |
|-------------------------|----|----|------|----|----|------|------|----|------|----|----|------|----|----|
| <b>Questions</b>        |    |    |      |    |    |      |      |    |      |    |    |      |    |    |
| 1.                      | 1  | K  | 5.   | 1  | K  | 9.   | 2    | C  | 13.  | 3  | K  | 17.  | 3  | C  |
| 2.                      | 1  | K  | 6.   | 2  | C  | 10.  | 2    | K  | 14.  | 3  | C  | 18.  | 3  | C  |
| 3.                      | 1  | C  | 7.   | 2  | K  | 11.  | 2    | C  | 15.  | 3  | C  | 19.  | 3  | C  |
| 4.                      | 1  | C  | 8.   | 2  | C  | 12.  | 3    | K  | 16.  | 3  | C  | 20.  | 1  | C  |
| <b>Brief Exercises</b>  |    |    |      |    |    |      |      |    |      |    |    |      |    |    |
| 1.                      | 1  | K  | 3.   | 2  | AP | 5.   | 2    | AP | 7.   | 3  | K  | 9.   | 3  | K  |
| 2.                      | 1  | AP | 4.   | 2  | AP | 6.   | 3    | K  | 8.   | 3  | K  | 10.  | 3  | K  |
| <b>Do It! Exercises</b> |    |    |      |    |    |      |      |    |      |    |    |      |    |    |
| 1a.                     | 1  | AP | 1b.  | 1  | AP | 2.   | 2    | AP | 3.   | 3  | K  |      |    |    |
| <b>Exercises</b>        |    |    |      |    |    |      |      |    |      |    |    |      |    |    |
| 1.                      | 1  | AP | 4.   | 1  | AP | 7.   | 2    | AP | 10.  | 2  | AP | 12.  | 3  | K  |
| 2.                      | 1  | AP | 5.   | 1  | AP | 8.   | 1, 2 | AP | 11.  | 2  | AP | 13.  | 3  | C  |
| 3.                      | 1  | AP | 6.   | 1  | AP | 9.   | 2    | AP |      |    |    |      |    |    |
| <b>Problems: Set A</b>  |    |    |      |    |    |      |      |    |      |    |    |      |    |    |
| 1.                      | 1  | AP | 3.   | 1  | AP | 5.   | 2    | AP | 7.   | 2  | AP |      |    |    |
| 2.                      | 1  | AP | 4.   | 2  | AN | 6.   | 2    | AP | 8.   | 3  | E  |      |    |    |

## ASSIGNMENT CHARACTERISTICS TABLE

| <b>Problem Number</b> | <b>Description</b>                                                                   | <b>Difficulty Level</b> | <b>Time Allotted (min.)</b> |
|-----------------------|--------------------------------------------------------------------------------------|-------------------------|-----------------------------|
| 1A                    | Prepare a classified balance sheet.                                                  | Simple                  | 10–20                       |
| 2A                    | Prepare financial statements.                                                        | Moderate                | 20–30                       |
| 3A                    | Prepare financial statements.                                                        | Moderate                | 20–30                       |
| 4A                    | Compute ratios; comment on relative profitability, liquidity, and solvency.          | Moderate                | 20–30                       |
| 5A                    | Compute and interpret liquidity, solvency, and profitability ratios.                 | Simple                  | 10–20                       |
| 6A                    | Compute and interpret liquidity, solvency, and profitability ratios.                 | Moderate                | 15–25                       |
| 7A                    | Compute ratios and compare liquidity, solvency, and profitability for two companies. | Moderate                | 15–25                       |
| 8A                    | Comment on the objectives and qualitative characteristics of financial reporting.    | Simple                  | 10–20                       |

# ANSWERS TO QUESTIONS

1. A company's operating cycle is the average time that is required to go from cash to cash in producing revenue.

LO 1 BT: K Diff: E TOT: 1 min. AACSB: None AICPA FC: Measurement

2. Current assets are assets that a company expects to convert to cash or use up within one year of the balance sheet date or the company's operating cycle, whichever is longer. Current assets are listed in the order in which they are expected to be converted into cash.

LO 1 BT: K Diff: E TOT: 1 min. AACSB: None AICPA FC: Reporting

3. Long-term investments are investments in stocks and bonds of other companies where the conversion into cash is not expected within one year or the operating cycle, whichever is longer and plant assets not currently in operational use. Property, plant, and equipment are tangible resources of a relatively permanent nature that are being used in the business and not intended for sale.

LO 1 BT: C Diff: M TOT: 2 min. AACSB: None AICPA FC: Reporting

4. Current liabilities are obligations that will be paid within the coming year or operating cycle, whichever is longer. Long-term liabilities are obligations that will be paid after one year.

LO 1 BT: C Diff: M TOT: 1 min. AACSB: None AICPA FC: Reporting

5. The two parts of stockholders' equity and the purpose of each are: (1) **Common stock** is used to record investments of assets in the business by the owners (stockholders). (2) **Retained earnings** is used to record net income retained in the business.

LO 1 BT: K Diff: M TOT: 2 min. AACSB: None AICPA FC: Reporting

6. (a) Geena is not correct. There are three characteristics: liquidity, profitability, and solvency.  
(b) The three parties are not primarily interested in the same characteristics of a company. Short-term creditors are primarily interested in the liquidity of the company. In contrast, long-term creditors and stockholders are primarily interested in the profitability and solvency of the company.

LO 2 BT: C Diff: M TOT: 3 min. AACSB: None AICPA FC: Reporting

7. (a) Liquidity ratios: Working capital and current ratio.  
(b) Solvency ratios: Debt to assets and free cash flow.  
(c) Profitability ratio: Earnings per share.

LO 2 BT: K Diff: E TOT: 2 min. AACSB: None AICPA FC: Reporting

8. Debt financing is riskier than equity financing because debt must be repaid at specific points in time, whether the company is performing well or not. Thus, the higher the percentage of assets financed by debt, the riskier the company.

LO 2 BT: C Diff: E TOT: 2 min. AACSB: None AICPA FC: Reporting

9. (a) Liquidity ratios measure the short-term ability of the company to pay its maturing obligations and to meet unexpected needs for cash.
- (b) Profitability ratios measure the income or operating success of a company for a given period of time.
- (c) Solvency ratios measure the company's ability to survive over a long period of time.

LO 2 BT: K Diff: E TOT: 2 min. AACSB: None AICPA FC: Reporting

10. (a) The increase in earnings per share is good news because it means that profitability has improved.
- (b) An increase in the current ratio signals good news because the company improved its ability to meet maturing short-term obligations.
- (c) The increase in the debt to assets ratio is bad news because it means that the company has increased its obligations to creditors and has lowered its equity "buffer."
- (d) A decrease in free cash flow is bad news because it means that the company has become less solvent. The higher the free cash flow, the more solvent the company.

LO 2 BT: AN Diff: M TOT: 3 min. AACSB: Analytic AICPA FC: Reporting

11. (a) The debt to assets ratio and free cash flow indicate the company's ability to repay the face value of the debt at maturity and make periodic interest payments.
- (b) The current ratio and working capital indicate a company's liquidity and short-term debt-paying ability.
- (c) Earnings per share indicates the earning power (profitability) of an investment.

LO 2 BT: C Diff: M TOT: 3 min. AACSB: Analytic AICPA FC: Reporting

12. (a) Generally accepted accounting principles (GAAP) are a set of rules and practices, having substantial support, that are recognized as a general guide for financial reporting purposes.
- (b) The body that provides authoritative support for GAAP is the Financial Accounting Standards Board (FASB).

LO 3 BT: K Diff: E TOT: 2 min. AACSB: None AICPA FC: Measurement

13. (a) The primary objective of financial reporting is to provide information useful for decision making.
- (b) The fundamental qualitative characteristics are relevance and faithful representation. The enhancing qualities are comparability, consistency, verifiability, timeliness, and understandability.

- 14.** Dietz is correct. Consistency means using the same accounting principles and accounting methods from period to period within a company. Without consistency in the application of accounting principles, it is difficult to determine whether a company is better off, worse off, or the same from period to period.

- 15.** Comparability results when different companies use the same accounting principles. Consistency means using the same accounting principles and methods from year to year within the same company.

- 16.** The cost constraint allows accounting standard-setters to weigh the cost that companies will incur to provide information against the benefit that financial statement users will gain from having the information available.

- 17.** Accounting standards are not uniform because individual countries have separate standard-setting bodies. Currently many non-U.S. countries are choosing to adopt International Financial Reporting Standards (IFRS). It appears that accounting standards in the United States will move toward compliance with IFRS.

- 18.** Accounting relies primarily on two measurement principles. Fair value is sometimes used when market price information is readily available. However, in many situations reliable market price information is not available. In these instances, accounting relies on historical cost as its basis.
- 19.** The economic entity assumption states that every economic entity can be separately identified and accounted for. This assumption requires that the activities of the entity be kept separate and distinct from (1) the activities of its owners (the shareholders) and (2) all other economic entities. A shareholder of a company charging personal living costs as expenses of the company is an example of a violation of the economic entity assumption.
- 20.** At September 27, 2014 Apple's largest current asset was Cash and cash equivalents of \$14,557 million, its largest current liability is Accounts payable of \$16,459 million and its largest item under "Assets" was Property and equipment, net of \$16,967 million.

# SOLUTIONS TO BRIEF EXERCISES

## BRIEF EXERCISE 2-1

|            |                          |            |                               |
|------------|--------------------------|------------|-------------------------------|
| <u>CL</u>  | Accounts payable         | <u>CL</u>  | Income taxes payable          |
| <u>CA</u>  | Accounts receivable      | <u>LTI</u> | Investment in long-term bonds |
| <u>PPE</u> | Accumulated depreciation | <u>PPE</u> | Land                          |
| <u>PPE</u> | Buildings                | <u>CA</u>  | Inventory                     |
| <u>CA</u>  | Cash                     | <u>IA</u>  | Patent                        |
| <u>IA</u>  | Goodwill                 | <u>CA</u>  | Supplies                      |

LO 1 BT: K Difficulty: Easy TOT: 2 min. AACSB: None AICPA FC: Reporting

## BRIEF EXERCISE 2-2

### CHIN COMPANY Partial Balance Sheet

---

|                            |                 |
|----------------------------|-----------------|
| <b>Current assets</b>      |                 |
| Cash .....                 | \$10,400        |
| Debt investments .....     | 8,200           |
| Accounts receivable .....  | 14,000          |
| Supplies .....             | 3,800           |
| Prepaid insurance .....    | 2,600           |
| Total current assets ..... | <u>\$39,000</u> |

LO 1 BT: AP Difficulty: Medium TOT: 3 min. AACSB: Analytic AICPA FC: Reporting

## BRIEF EXERCISE 2-3

$$\begin{aligned}\text{Earnings per share} &= \frac{\text{Net income} - \text{Preferred dividends}}{\text{Average common shares outstanding}} \\ &= \frac{\$220 \text{ million} - \$0}{333 \text{ million shares}} = \$0.66 \text{ per share}\end{aligned}$$

LO 2 BT: AP Difficulty: Easy TOT: 2 min. AACSB: Analytic AICPA FC: Reporting

## BRIEF EXERCISE 2-4

Working capital = Current assets – Current liabilities

|                     |                        |
|---------------------|------------------------|
| Current assets      | \$102,500,000          |
| Current liabilities | <u>201,200,000</u>     |
| Working capital     | <u>(\$ 98,700,000)</u> |

Current ratio:

$$\frac{\text{Current assets}}{\text{Current liabilities}} = \frac{\$102,500,000}{\$201,200,000}$$
$$= .51:1$$

LO 2 BT: AP Difficulty: Easy TOT: 3 min. AACSB: Analytic AICPA FC: Reporting

## BRIEF EXERCISE 2-5

- (a) Current ratio  $\frac{\$262,787}{\$293,625} = 0.89:1$
- (b) Debt to assets  $\frac{\$376,002}{\$439,832} = 85.5\%$
- (c) Free cash flow  $\$62,300 - \$24,787 - \$12,000 = \$25,513$   
(Net cash provided  
operating activities –  
capital expenditures –  
dividends paid)

LO 2 BT: AP Difficulty: Easy TOT: 3 min. AACSB: Analytic AICPA FC: Reporting

## BRIEF EXERCISE 2-6

- (a) True.  
(b) False.

LO 3 BT: K Difficulty: Easy TOT: 2 min. AACSB: None AICPA FC: Measurement

## **BRIEF EXERCISE 2-7**

- (a) Predictive value.**
- (b) Confirmatory value.**
- (c) Materiality**
- (d) Complete.**
- (e) Free from error.**
- (f) Comparability.**
- (g) Verifiability.**
- (h) Timeliness.**

**LO 3 BT: K Difficulty: Easy TOT: 3 min. AACSB: None AICPA FC: Measurement**

## **BRIEF EXERCISE 2-8**

- (a) Relevant.**
- (b) Faithful representation.**
- (c) Consistency.**

**LO 3 BT: K Difficulty: Easy TOT: 2 min. AACSB: None AICPA FC: Measurement**

## **BRIEF EXERCISE 2-9**

- (a) 1. Predictive value.**
- (b) 2. Neutral.**
- (c) 3. Verifiable.**
- (d) 4. Timely.**

**LO 3 BT: K Difficulty: Easy TOT: 2 min. AACSB: None AICPA FC: Measurement**

## **BRIEF EXERCISE 2-10**

- (c)**

**LO 3 BT: K Difficulty: Easy TOT: 1 min. AACSB: None AICPA FC: Measurement**

## SOLUTIONS TO DO IT! EXERCISES

### DO IT! 2-1a

#### MYLAR CORPORATION Balance Sheet (partial) December 31, 2017

| <b>Assets</b>                                     |               |  |                         |
|---------------------------------------------------|---------------|--|-------------------------|
| <b>Current assets</b>                             |               |  |                         |
| Cash.....                                         | \$ 13,000     |  |                         |
| Accounts receivable .....                         | 22,000        |  |                         |
| Inventory .....                                   | 58,000        |  |                         |
| Supplies .....                                    | <u>7,000</u>  |  |                         |
| <b>Total current assets .....</b>                 |               |  | <b>\$100,000</b>        |
| <b>Property, plant, and equipment</b>             |               |  |                         |
| Equipment.....                                    | 180,000       |  |                         |
| Less: Accumulated depreciation—<br>equipment..... | <u>50,000</u> |  | <u>130,000</u>          |
| <b>Total assets.....</b>                          |               |  | <b><u>\$230,000</u></b> |

LO 1 BT: AP Difficulty: Medium TOT: 5 min. AACSB: Analytic AICPA FC: Reporting

### DO IT! 2-1b

|                                         |                                              |
|-----------------------------------------|----------------------------------------------|
| <u>IA</u> Trademarks                    | <u>CA</u> Inventory                          |
| <u>CL</u> Notes payable (current)       | <u>PPE</u> Accumulated depreciation          |
| <u>NA</u> Interest revenue              | <u>PPE</u> Land                              |
| <u>CL</u> Income taxes payable          | <u>SE</u> Common stock                       |
| <u>LTI</u> Debt investments (long-term) | <u>NA</u> Advertising expense                |
| <u>CL</u> Unearned sales revenue        | <u>LTL</u> Mortgage payable (due in 3 years) |

LO 1 BT: AP Difficulty: Easy TOT: 3 min. AACSB: Analytic AICPA FC: Reporting

## DO IT! 2-2

|     |                                                             |                                                             |
|-----|-------------------------------------------------------------|-------------------------------------------------------------|
| (a) | 2017                                                        | 2016                                                        |
|     | $\frac{(\$80,000 - \$6,000)}{(40,000 + 75,000)/2} = \$1.29$ | $\frac{(\$40,000 - \$6,000)}{(30,000 + 40,000)/2} = \$0.97$ |

Nguoi's profitability, as measured by the amount of income available for each share of common stock, increased by 33 percent  $((\$1.29 - \$0.97)/\$0.97)$  during 2017. Earnings per share should not be compared across companies because the number of shares issued by companies varies widely. Thus, we cannot conclude that Nguoi Corporation is more profitable than Matisse Corporation based on its higher EPS in 2017.

$$\frac{\text{Net Income} - \text{Preferred Dividends}}{\text{Average Common Shares Outstanding}}$$

|               |                                      |                                      |
|---------------|--------------------------------------|--------------------------------------|
| (b)           | 2017                                 | 2016                                 |
| Current ratio | $\frac{\$54,000}{\$22,000} = 2.45:1$ | $\frac{\$36,000}{\$30,000} = 1.20:1$ |

$$\frac{\text{Current assets}}{\text{Current liabilities}}$$

|                      |                                     |                                      |
|----------------------|-------------------------------------|--------------------------------------|
| Debt to assets ratio | $\frac{\$72,000}{\$240,000} = 30\%$ | $\frac{\$100,000}{\$205,000} = 49\%$ |
|----------------------|-------------------------------------|--------------------------------------|

$$\frac{\text{Total liabilities}}{\text{Total assets}}$$

The company's liquidity, as measured by the current ratio improved from 1.20:1 to 2.45:1. Its solvency also improved, because the debt to assets ratio declined from 49% to 30%.

|     |                |                                                            |
|-----|----------------|------------------------------------------------------------|
| (c) | Free cash flow | 2017: $\$90,000 - \$6,000 - \$3,000 - \$27,000 = \$54,000$ |
|     |                | 2016: $\$56,000 - \$6,000 - \$1,500 - \$12,000 = \$36,500$ |

The amount of cash generated by the company above its needs for dividends and capital expenditures increased from \$36,500 to \$54,000.

LO 1 BT: AP Difficulty: Easy TOT: 3 min. AACSB: Analytic AICPA FC: Reporting

## **DO IT! 2-3**

- 1. Monetary unit assumption**
- 2. Faithful representation**
- 3. Economic entity assumption**
- 4. Cost constraint**
- 5. Consistency**
- 6. Historical cost principle**
- 7. Relevance**
- 8. Periodicity assumption**
- 9. Full disclosure principle**
- 10. Materiality**
- 11. Going concern assumption**
- 12. Comparability**

**LO 2 BT: K Difficulty: Hard TOT: 10 min. AACSB: Analytic AICPA FC: Reporting**

# SOLUTIONS TO EXERCISES

## EXERCISE 2-1

|            |                                 |            |                   |
|------------|---------------------------------|------------|-------------------|
| <u>CL</u>  | Accounts payable                | <u>CA</u>  | Inventory         |
| <u>CA</u>  | Accounts receivable             | <u>CA</u>  | Stock investments |
| <u>PPE</u> | Accumulated depreciation—equip. | <u>PPE</u> | Land (in use)     |
| <u>PPE</u> | Buildings                       | <u>LTL</u> | Mortgage payable  |
| <u>CA</u>  | Cash                            | <u>CA</u>  | Supplies          |
| <u>CL</u>  | Interest payable                | <u>PPE</u> | Equipment         |
| <u>IA</u>  | Goodwill                        | <u>CA</u>  | Prepaid rent      |
| <u>CL</u>  | Income taxes payable            |            |                   |

LO 1 BT: AP Difficulty: Easy TOT: 3 min. AACSB: Analytic AICPA FC: Reporting

## EXERCISE 2-2

|            |                            |            |                        |
|------------|----------------------------|------------|------------------------|
| <u>CA</u>  | Prepaid advertising        | <u>IA</u>  | Patents                |
| <u>PPE</u> | Equipment                  | <u>LTL</u> | Bonds payable          |
| <u>IA</u>  | Trademarks                 | <u>SE</u>  | Common stock           |
| <u>CL</u>  | Salaries and wages payable | <u>PPE</u> | Accumulated            |
| <u>CL</u>  | Income taxes payable       |            | depreciation—equipment |
| <u>SE</u>  | Retained earnings          | <u>CL</u>  | Unearned sales revenue |
| <u>CA</u>  | Accounts receivable        | <u>CA</u>  | Inventory              |
| <u>LTI</u> | Land (held for future use) |            |                        |

LO 1 BT: AP Difficulty: Easy TOT: 3 min. AACSB: Analytic AICPA FC: Reporting

**EXERCISE 2-3**

**THE BOEING COMPANY**  
**Partial Balance Sheet**  
**December 31, 2017**  
**(in millions)**

| <b>Assets</b>                                  |               |  |                        |
|------------------------------------------------|---------------|--|------------------------|
| <b>Current assets</b>                          |               |  |                        |
| Cash .....                                     | \$ 9,215      |  |                        |
| Debt investments .....                         | 2,008         |  |                        |
| Accounts receivable .....                      | 5,785         |  |                        |
| Notes receivable .....                         | 368           |  |                        |
| Inventory .....                                | <u>16,933</u> |  |                        |
| Total current assets .....                     |               |  | \$34,309               |
| <b>Long-term investments</b>                   |               |  |                        |
| Notes receivable .....                         |               |  | 5,466                  |
| <b>Property, plant, and equipment</b>          |               |  |                        |
| Buildings .....                                | 21,579        |  |                        |
| Less: Accumulated depreciation—buildings ..... | <u>12,795</u> |  | 8,784                  |
| <b>Intangible assets</b>                       |               |  |                        |
| Patents .....                                  |               |  | <u>12,528</u>          |
| <b>Total assets .....</b>                      |               |  | <u><b>\$61,087</b></u> |

LO 1 BT: AP Difficulty: Medium TOT: 5 min. AACSB: Analytic AICPA FC: Reporting

**EXERCISE 2-4**

**H. J. HEINZ COMPANY**  
**Partial Balance Sheet**  
**April 30, 2017**  
**(in thousands)**

---

| <b>Assets</b>                         |                  |                  |                            |
|---------------------------------------|------------------|------------------|----------------------------|
| <b>Current assets</b>                 |                  |                  |                            |
| Cash.....                             |                  | \$ 373,145       |                            |
| Accounts receivable.....              |                  | 1,171,797        |                            |
| Inventory .....                       |                  | 1,237,613        |                            |
| Prepaid insurance .....               |                  | <u>125,765</u>   |                            |
| Total current assets .....            |                  |                  | \$ 2,908,320               |
| <b>Property, plant, and equipment</b> |                  |                  |                            |
| Land.....                             |                  | 76,193           |                            |
| Buildings .....                       | \$4,033,369      |                  |                            |
| Less: Accumulated depreciation—       |                  |                  |                            |
| Buildings .....                       | <u>2,131,260</u> | <u>1,902,109</u> | 1,978,302                  |
| <b>Intangible assets</b>              |                  |                  |                            |
| Goodwill .....                        |                  | 3,982,954        |                            |
| Trademarks .....                      |                  | <u>757,907</u>   | <u>4,740,861</u>           |
| Total assets .....                    |                  |                  | <u><u>\$ 9,627,483</u></u> |

LO 1 BT: AP Difficulty: Medium TOT: 5 min. AACSB: Analytic AICPA FC: Reporting

## EXERCISE 2-5

### LONGHORN COMPANY Balance Sheet December 31, 2017

| Assets                                              |               |               |                  |
|-----------------------------------------------------|---------------|---------------|------------------|
| <b>Current assets</b>                               |               |               |                  |
| Cash .....                                          |               | \$11,840      |                  |
| Accounts receivable .....                           |               | 12,600        |                  |
| Prepaid insurance .....                             |               | <u>3,200</u>  |                  |
| Total current assets .....                          |               |               | \$ 27,640        |
| <b>Property, plant, and equipment</b>               |               |               |                  |
| Land .....                                          |               | 61,200        |                  |
| Buildings .....                                     | \$105,800     |               |                  |
| Less: Accumulated depreciation—<br>buildings .....  | <u>45,600</u> | 60,200        |                  |
| Equipment .....                                     | 82,400        |               |                  |
| Less: Accumulated depreciation—<br>equipment .....  | <u>18,720</u> | <u>63,680</u> | <u>185,080</u>   |
| Total assets .....                                  |               |               | <u>\$212,720</u> |
| <b>Liabilities and Stockholders' Equity</b>         |               |               |                  |
| <b>Current liabilities</b>                          |               |               |                  |
| Accounts payable .....                              |               | \$ 9,500      |                  |
| Current maturity of note payable .....              |               | 13,600        |                  |
| Interest payable .....                              |               | <u>3,600</u>  |                  |
| Total current liabilities .....                     |               |               | \$ 26,700        |
| <b>Long-term liabilities</b>                        |               |               |                  |
| Note payable (\$93,600 – \$13,600) .....            |               | <u>80,000</u> |                  |
| Total liabilities .....                             |               |               | 106,700          |
| <b>Stockholders' equity</b>                         |               |               |                  |
| Common stock .....                                  |               | 60,000        |                  |
| Retained earnings<br>(\$40,000 + \$6,020*) .....    |               | <u>46,020</u> |                  |
| Total stockholders' equity .....                    |               |               | <u>106,020</u>   |
| Total liabilities and stockholders'<br>equity ..... |               |               | <u>\$212,720</u> |

\*Net income = \$14,700 – \$780 – \$5,300 – \$2,600 = \$6,020

(Assets = Liabilities + Stockholders' Equity)

LO 1 BT: AP Difficulty: Medium TOT: 10 min. AACSB: Analytic AICPA FC: Reporting

**EXERCISE 2-6**

**TEXAS INSTRUMENTS, INC.**  
**Balance Sheet**  
**December 31, 2017**  
**(in millions)**

| <b>Assets</b>                                           |              |                        |  |
|---------------------------------------------------------|--------------|------------------------|--|
| <b>Current assets</b>                                   |              |                        |  |
| Cash .....                                              | \$ 1,182     |                        |  |
| Debt investments .....                                  | 1,743        |                        |  |
| Accounts receivable .....                               | 1,823        |                        |  |
| Inventory .....                                         | 1,202        |                        |  |
| Prepaid rent .....                                      | <u>164</u>   |                        |  |
| <b>Total current assets</b> .....                       |              | <b>\$ 6,114</b>        |  |
| <b>Long-term investments</b>                            |              |                        |  |
| Stock investments .....                                 |              | <b>637</b>             |  |
| <b>Property, plant, and equipment</b>                   |              |                        |  |
| Equipment .....                                         | 6,705        |                        |  |
| Less: Accumulated depreciation—equipment .....          | <u>3,547</u> | <b>3,158</b>           |  |
| <b>Intangible assets</b>                                |              |                        |  |
| Patents .....                                           |              | <u>2,210</u>           |  |
| <b>Total assets</b> .....                               |              | <b><u>\$12,119</u></b> |  |
| <b>Liabilities and Stockholders' Equity</b>             |              |                        |  |
| <b>Current liabilities</b>                              |              |                        |  |
| Accounts payable .....                                  | \$1,459      |                        |  |
| Income taxes payable .....                              | <u>128</u>   |                        |  |
| <b>Total current liabilities</b> .....                  |              | <b>\$ 1,587</b>        |  |
| <b>Long-term liabilities</b>                            |              |                        |  |
| Notes payable .....                                     |              | <u>810</u>             |  |
| <b>Total liabilities</b> .....                          |              | <b>2,397</b>           |  |
| <b>Stockholders' equity</b>                             |              |                        |  |
| Common stock .....                                      | 2,826        |                        |  |
| Retained earnings .....                                 | <u>6,896</u> |                        |  |
| <b>Total stockholders' equity</b> .....                 |              | <b><u>9,722</u></b>    |  |
| <b>Total liabilities and stockholders' equity</b> ..... |              | <b><u>\$12,119</u></b> |  |

(Assets = Liabilities + Stockholders' Equity)

LO 1 BT: AP Difficulty: Medium TOT: 10 min. AACSB: Analytic AICPA FC: Reporting

## EXERCISE 2-7

(a) 
$$\text{Earnings per share} = \frac{\text{Net income} - \text{Preferred dividends}}{\text{Average common shares outstanding}}$$

2017 : 
$$\frac{\$66,176,000 - 0}{(66,282,000 + 64,507,000) / 2} = \$ 1.01$$

2016 : 
$$\frac{\$54,587,000 - 0}{(73,139,000 + 66,282,000) / 2} = \$ .78$$

- (b) Using net income (loss) as a basis to evaluate profitability, Callaway Golf's income improved by 21%  $[(\$66,176 - \$54,587) \div \$54,587]$  between 2016 and 2017. Its earnings per share increased by 29%  $[(\$1.01 - \$0.78) \div \$0.78]$ .
- (c) To determine earnings per share, dividends on preferred stock are subtracted from net income, but dividends on common stock are not subtracted.

LO 2 BT: AP Difficulty: Medium TOT: 7 min. AACSB: Analytic AICPA FC: Reporting

**EXERCISE 2-8**

(a) **FAIRVIEW CORPORATION**  
**Income Statement**  
**For the Year Ended July 31, 2017**

|                                  |              |                          |
|----------------------------------|--------------|--------------------------|
| <b>Revenues</b>                  |              |                          |
| Service revenue .....            | \$66,100     |                          |
| Rent revenue .....               | <u>8,500</u> |                          |
| Total revenues .....             |              | \$74,600                 |
| <b>Expenses</b>                  |              |                          |
| Salaries and wages expense ..... | 57,500       |                          |
| Supplies expense .....           | 15,600       |                          |
| Depreciation expense .....       | <u>4,000</u> |                          |
| Total expenses .....             |              | <u>77,100</u>            |
| Net loss .....                   |              | <u><u>\$ (2,500)</u></u> |

**FAIRVIEW CORPORATION**  
**Retained Earnings Statement**  
**For the Year Ended July 31, 2017**

|                                         |              |                        |
|-----------------------------------------|--------------|------------------------|
| Retained earnings, August 1, 2013 ..... |              | \$34,000               |
| Less: Net loss .....                    | \$2,500      |                        |
| Dividends .....                         | <u>4,000</u> | <u>6,500</u>           |
| Retained earnings, July 31, 2014 .....  |              | <u><u>\$27,500</u></u> |

[Revenues – Expenses = Net income or (loss)]

(Beginning retained earnings ± Changes in retained earnings = Ending retained earnings)

(b) **FAIRVIEW CORPORATION**  
**Balance Sheet**  
**July 31, 2017**

|                                                    |              |                        |
|----------------------------------------------------|--------------|------------------------|
| <b>Assets</b>                                      |              |                        |
| <b>Current assets</b>                              |              |                        |
| Cash .....                                         | \$29,200     |                        |
| Accounts receivable .....                          | <u>9,780</u> |                        |
| Total current assets .....                         |              | \$38,980               |
| <b>Property, plant, and equipment</b>              |              |                        |
| Equipment .....                                    | 18,500       |                        |
| Less: Accumulated depreciation—<br>equipment ..... | <u>6,000</u> | <u>12,500</u>          |
| Total assets .....                                 |              | <u><u>\$51,480</u></u> |

## EXERCISE 2-8 (Continued)

(b)

### FAIRVIEW CORPORATION Balance Sheet (Continued) July 31, 2017

| Liabilities and Stockholders' Equity            |               |              |                 |
|-------------------------------------------------|---------------|--------------|-----------------|
| <b>Current liabilities</b>                      |               |              |                 |
| Accounts payable .....                          | \$ 4,100      |              |                 |
| Salaries and wages payable .....                | <u>2,080</u>  |              |                 |
| Total current liabilities .....                 |               |              | \$ 6,180        |
| <b>Long-term liabilities</b>                    |               |              |                 |
| Notes payable .....                             |               | <u>1,800</u> |                 |
| Total liabilities.....                          |               |              | <u>7,980</u>    |
| <b>Stockholders' equity</b>                     |               |              |                 |
| Common stock.....                               | 16,000        |              |                 |
| Retained earnings .....                         | <u>27,500</u> |              |                 |
| Total stockholders' equity .....                |               |              | <u>43,500</u>   |
| Total liabilities and stockholders' equity..... |               |              | <u>\$51,480</u> |

(Assets = Liabilities + Stockholders' equity)

$$(c) \quad \text{Current ratio} = \frac{\$38,980}{\$6,180} = 6.3 : 1$$

$$\text{Debt to assets ratio} = \frac{\$7,980}{\$51,480} = 15.5\%$$

(Current assets ÷ Current liabilities) and (Total liabilities ÷ Total assets)

- (d) The current ratio would not change because equipment is not a current asset and a 5-year note payable is a long-term liability rather than a current liability.

The debt to assets ratio would increase from 15.5% to 39.1%\*.

Looking solely at the debt to assets ratio, I would favor making the sale because Fairview's debt to assets ratio of 15.5% is very low. Looking at additional financial data, I would note that Fairview reported a significant loss for the current year which would lead me to question its ability to make interest and loan payments (and even remain in business) in the future. I would not make the proposed sale unless Fairview convinced me that it would be capable of earnings in the future rather than losses.

## EXERCISE 2-8 (Continued)

I would also consider making the sale but requiring a substantial down-payment and smaller note.

$$*(\$7,980 + \$20,000) \div (\$51,480 + \$20,000)$$

LO 1, 2 BT: AP Difficulty: Hard TOT: 20 min. AACSB: Analytic AICPA FC: Reporting

## EXERCISE 2-9

| (a)             | <u>Beginning of Year</u>           | <u>End of Year</u>                 |
|-----------------|------------------------------------|------------------------------------|
| Working capital | $\$3,361 - \$1,635 = \$1,726$      | $\$3,217 - \$1,601 = \$1,616$      |
| Current ratio   | $\frac{\$3,361}{\$1,635} = 2.06:1$ | $\frac{\$3,217}{\$1,601} = 2.01:1$ |

(Current assets – Current liabilities) and (Current assets ÷ Current liabilities)

(b) Nordstrom's liquidity decreased slightly during the year. Its current ratio decreased from 2.06:1 to 2.01:1. Also, Nordstrom's working capital decreased by \$110 million.

(c) Nordstrom's current ratio at both the beginning and the end of the recent year exceeds Best Buy's current ratio for 2014 (and 2013). Nordstrom's end-of-year current ratio (2.01) exceeds Best Buy's 2014 current ratio (1.41\*). Nordstrom would be considered much more liquid than Best Buy for the recent year.

\*(see text, pg. 55)

LO 2 BT: AP Difficulty: Medium TOT: 10 min. Difficulty: Analytic AICPA FC: Reporting

## EXERCISE 2-10

$$(a) \text{ Current ratio} = \frac{\$60,000}{\$30,000} = 2.0:1$$

$$\text{Working capital} = \$60,000 - \$30,000 = \$30,000$$

(Current assets ÷ Current liabilities) and (Current assets – Current liabilities)

## EXERCISE 2-10 (Continued)

$$(b) \text{ Current ratio} = \frac{\$40,000^*}{\$10,000^{**}} = 4.0 : 1$$

$$\text{Working capital} = \$40,000 - \$10,000 = \$30,000$$

$$^*\$60,000 - \$20,000$$

$$^{**}\$30,000 - \$20,000$$

(Current assets ÷ Current liabilities) and (Current assets – Current liabilities)

- (c) Liquidity measures indicate a company's ability to pay current obligations as they become due. Satisfaction of current obligations usually requires the use of current assets.

If a company has more current assets than current liabilities it is more likely that it will meet obligations as they become due. Since working capital and the current ratio compare current assets to current liabilities, both are measures of liquidity.

Payment of current obligations frequently requires cash. Neither working capital nor the current ratio indicate the composition of current assets. If a company's current assets are largely comprised of items such as inventory and prepaid expenses it may have difficulty paying current obligations even though its working capital and current ratio are large enough to indicate favorable liquidity. In Myeneke's case, payment of \$20,000 of accounts payable will leave only \$5,000 cash. Since salaries payable will require \$10,000, the company may need to borrow in order to make the required payment for salaries.

- (d) The CFO's decision to use \$20,000 of cash to pay off accounts payable is not in itself unethical. However, doing so just to improve the year-end current ratio could be considered unethical if this action misled creditors. Since the CFO requested preparation of a "preliminary" balance sheet before deciding to pay off the liabilities he seems to be "managing" the company's financial position, which is usually considered unethical.

LO 2 BT: AP Difficulty: Medium TOT: 15 min. Difficulty: Analytic AICPA FC: Reporting

## EXERCISE 2-11

|                                                                                                                                                                                                                                                                                                                                                                 | 2017                                            | 2016                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|------------------------------------------------|
| (a) Current ratio                                                                                                                                                                                                                                                                                                                                               | $\frac{\$925,359}{\$401,763} = 2.30 : 1$        | $\frac{\$1,020,834}{\$376,178} = 2.71 : 1$     |
| (b) Earnings per share                                                                                                                                                                                                                                                                                                                                          | $\frac{\$179,061}{205,169} = \$0.87$            | $\frac{\$400,019}{216,119} = \$1.85$           |
| (c) Debt to assets ratio                                                                                                                                                                                                                                                                                                                                        | $\frac{\$554,645}{\$1,963,676} = 28.2\%$        | $\frac{\$527,216}{\$1,867,680} = 28.2\%$       |
| (d) Free cash flow                                                                                                                                                                                                                                                                                                                                              | $\$302,193 - \$265,335 - \$82,394 = (\$45,536)$ | $\$464,270 - \$250,407 - \$80,796 = \$133,067$ |
| (e) Using the debt to assets ratio and free cash flow as measures of solvency produces deteriorating results for American Eagle Outfitters. Its debt to assets ratio remained constant from 2016 to 2017. However, its free cash flow decreased by 134% indicating a significant decline in solvency.                                                           |                                                 |                                                |
| (f) In 2016 American Eagle Outfitters's cash provided by operating activities was greater than the cash used for capital expenditures. It was generating plenty of cash from operations to cover its investing needs. In 2017, American Eagle Outfitters experienced negative free cash flow. This deficiency could have been covered by issuing stock or debt. |                                                 |                                                |

LO 2 BT: AP Difficulty: Medium TOT: 15 min. Difficulty: Analytic AICPA FC: Reporting

## EXERCISE 2-12

- (a) 2 Going concern assumption
- (b) 6 Economic entity assumption
- (c) 3 Monetary unit assumption
- (d) 4 Periodicity assumption
- (e) 5 Historical cost principle
- (f) 1 Full disclosure principle

LO 3 BT: K Difficulty: Easy TOT: 2 min. AACSB: None AICPA FC: Measurement

## EXERCISE 2-13

- (a) This is a violation of the historical cost principle. The inventory was written up to its fair value when it should have remained at cost.
- (b) This is a violation of the economic entity assumption. The treatment of the transaction treats Victor Lopez and Lopez Co. as one entity when they are two separate entities. The cash used to purchase the truck should have been treated as part of salaries and wages expense.
- (c) This is a violation of the periodicity assumption. This assumption states that the economic life of a business can be divided into artificial time periods (months, quarters, or a year). By adding two more weeks to the year, Lopez Co. would be misleading financial statement readers. In addition, 2017 results would not be comparable to previous years' results. The company should use a 52 week year.

LO 3 BT: C Difficulty: Medium TOT: 5 min. AACSB: None AICPA FC: Measurement

# SOLUTIONS TO PROBLEMS

## PROBLEM 2-1A

### YAHOO! INC. Balance Sheet December 31, 2017 (Amounts are in millions)

| Assets                                             |              |                        |
|----------------------------------------------------|--------------|------------------------|
| <b>Current assets</b>                              |              |                        |
| Cash .....                                         | \$2,292      |                        |
| Debt investments .....                             | 1,160        |                        |
| Accounts receivable .....                          | 1,061        |                        |
| Prepaid rent .....                                 | <u>233</u>   |                        |
| Total current assets .....                         |              | \$ 4,746               |
| <b>Long-term investments</b>                       |              |                        |
| Stock investments .....                            |              | 3,247                  |
| <b>Property, plant, and equipment</b>              |              |                        |
| Equipment.....                                     | 1,737        |                        |
| Less: Accumulated depreciation—<br>equipment ..... | <u>201</u>   | 1,536                  |
| <b>Intangible assets</b>                           |              |                        |
| Goodwill .....                                     | 3,927        |                        |
| Patents .....                                      | <u>234</u>   | <u>4,161</u>           |
| Total assets .....                                 |              | <u><u>\$13,690</u></u> |
| Liabilities and Stockholders' Equity               |              |                        |
| <b>Current liabilities</b>                         |              |                        |
| Accounts payable .....                             | \$ 152       |                        |
| Unearned sales revenue .....                       | <u>413</u>   |                        |
| Total current liabilities .....                    |              | \$ 565                 |
| <b>Long-term liabilities</b>                       |              |                        |
| Notes payable .....                                |              | <u>734</u>             |
| Total liabilities .....                            |              | 1,299                  |
| <b>Stockholders' equity</b>                        |              |                        |
| Common stock .....                                 | 6,283        |                        |
| Retained earnings .....                            | <u>6,108</u> |                        |
| Total stockholders' equity .....                   |              | <u>12,391</u>          |
| Total liabilities and stockholders'<br>equity..... |              | <u><u>\$13,690</u></u> |

(Assets = Liabilities + Stockholders' equity)

LO 1 BT: AP Difficulty: Medium TOT: 12 min. AACSB: Analytic AICPA FC: Measurement

**PROBLEM 2-2A**

**MARTIN CORPORATION**  
**Income Statement**  
**For the Year Ended December 31, 2017**

---

|                                       |                 |                        |
|---------------------------------------|-----------------|------------------------|
| <b>Revenues</b>                       |                 |                        |
| Service revenue .....                 |                 | <b>\$68,000</b>        |
| <b>Expenses</b>                       |                 |                        |
| Salaries and wages expense .....      | <b>\$37,000</b> |                        |
| Depreciation expense.....             | <b>3,600</b>    |                        |
| Insurance expense .....               | <b>2,200</b>    |                        |
| Utilities expense .....               | <b>2,000</b>    |                        |
| Maintenance and repairs expense ..... | <b>1,800</b>    |                        |
| Total expenses .....                  |                 | <b><u>46,600</u></b>   |
| Net income .....                      |                 | <b><u>\$21,400</u></b> |

**MARTIN CORPORATION**  
**Retained Earnings Statement**  
**For the Year Ended December 31, 2017**

---

|                                            |                        |
|--------------------------------------------|------------------------|
| Retained earnings, January 1, 2017.....    | <b>\$31,000</b>        |
| Add: Net income.....                       | <b><u>21,400</u></b>   |
|                                            | <b>52,400</b>          |
| Less: Dividends .....                      | <b><u>12,000</u></b>   |
| Retained earnings, December 31, 2017 ..... | <b><u>\$40,400</u></b> |

**PROBLEM 2-2A (Continued)**

**MARTIN CORPORATION**  
**Balance Sheet**  
**December 31, 2017**

| <b>Assets</b>                                          |               |                        |  |
|--------------------------------------------------------|---------------|------------------------|--|
| <b>Current assets</b>                                  |               |                        |  |
| Cash .....                                             | \$10,100      |                        |  |
| Accounts receivable .....                              | 11,700        |                        |  |
| Prepaid insurance .....                                | <u>3,500</u>  |                        |  |
| <b>Total current assets .....</b>                      |               | <b>\$25,300</b>        |  |
| <b>Property, plant, and equipment</b>                  |               |                        |  |
| Equipment.....                                         | 66,000        |                        |  |
| Less: Accumulated depreciation—equipment ..            | <u>17,600</u> | <u>48,400</u>          |  |
| <b>Total assets .....</b>                              |               | <b><u>\$73,700</u></b> |  |
| <b>Liabilities and Stockholders' Equity</b>            |               |                        |  |
| <b>Current liabilities</b>                             |               |                        |  |
| Accounts payable .....                                 | \$18,300      |                        |  |
| Salaries and wages payable.....                        | <u>3,000</u>  |                        |  |
| <b>Total current liabilities .....</b>                 |               | <b>\$21,300</b>        |  |
| <b>Stockholders' equity</b>                            |               |                        |  |
| Common stock .....                                     | 12,000        |                        |  |
| Retained earnings .....                                | <u>40,400</u> |                        |  |
| <b>Total stockholders' equity .....</b>                |               | <b><u>52,400</u></b>   |  |
| <b>Total liabilities and stockholders' equity.....</b> |               | <b><u>\$73,700</u></b> |  |

[Revenues – Expenses = Net income or (loss)]

(Beginning retained earnings ± Changes in retained earnings = Ending retained earnings)

(Assets = Liabilities + Stockholders' equity)

LO 1 BT: AP Difficulty: Medium TOT: 15 min. AACSB: Analytic AICPA FC: Measurement

|                     |
|---------------------|
| <b>PROBLEM 2-3A</b> |
|---------------------|

(a)

**LAZURIS ENTERPRISES**  
**Income Statement**  
**For the Year Ended April 30, 2017**

|                                  |            |                       |
|----------------------------------|------------|-----------------------|
| Sales revenue .....              |            | \$5,100               |
| Expenses                         |            |                       |
| Cost of goods sold .....         | \$1,060    |                       |
| Salaries and wages expense ..... | 700        |                       |
| Interest expense .....           | 400        |                       |
| Depreciation expense.....        | 335        |                       |
| Insurance expense .....          | 210        |                       |
| Income tax expense.....          | <u>165</u> |                       |
| Total expenses .....             |            | <u>2,870</u>          |
| Net income .....                 |            | <u><u>\$2,230</u></u> |

**LAZURIS ENTERPRISES**  
**Retained Earnings Statement**  
**For the Year Ended April 30, 2017**

|                                        |  |                       |
|----------------------------------------|--|-----------------------|
| Retained earnings, May 1, 2013.....    |  | \$1,600               |
| Add: Net income .....                  |  | <u>2,230</u>          |
|                                        |  | 3,830                 |
| Less: Dividends .....                  |  | <u>325</u>            |
| Retained earnings, April 30, 2014..... |  | <u><u>\$3,505</u></u> |

[Revenues – Expenses = Net income or (loss)]

(Beginning retained earnings ± Changes in retained earnings = Ending retained earnings)

**PROBLEM 2-3A (Continued)**

**(b) LAZURIS ENTERPRISES**  
**Balance Sheet**  
**April 30, 2017**

| <b>Assets</b>                                  |            |              |                |
|------------------------------------------------|------------|--------------|----------------|
| <b>Current assets</b>                          |            |              |                |
| Cash .....                                     |            | \$1,270      |                |
| Stock investments .....                        |            | 1,200        |                |
| Accounts receivable .....                      |            | 810          |                |
| Inventory .....                                |            | 967          |                |
| Prepaid insurance .....                        |            | <u>60</u>    |                |
| Total current assets .....                     |            |              | \$4,307        |
| <b>Property, plant, and equipment</b>          |            |              |                |
| Land .....                                     |            | 3,100        |                |
| Equipment .....                                | \$2,420    |              |                |
| Less: Accumulated depreciation—equipment ..... | <u>670</u> | <u>1,750</u> | <u>4,850</u>   |
| Total assets .....                             |            |              | <u>\$9,157</u> |

**Liabilities and Stockholders' Equity**

|                                                  |  |              |                |
|--------------------------------------------------|--|--------------|----------------|
| <b>Current liabilities</b>                       |  |              |                |
| Notes payable .....                              |  | \$ 61        |                |
| Accounts payable .....                           |  | 834          |                |
| Salaries and wages payable .....                 |  | 222          |                |
| Income taxes payable .....                       |  | <u>135</u>   |                |
| Total current liabilities .....                  |  |              | \$1,252        |
| Mortgage payable .....                           |  |              | <u>3,500</u>   |
| Total liabilities .....                          |  |              | 4,752          |
| <b>Stockholders' equity</b>                      |  |              |                |
| Common stock .....                               |  | 900          |                |
| Retained earnings .....                          |  | <u>3,505</u> |                |
| Total stockholders' equity .....                 |  |              | <u>4,405</u>   |
| Total liabilities and stockholders' equity ..... |  |              | <u>\$9,157</u> |

(Assets = Liabilities + Stockholders' equity)

LO 1 BT: AP Difficulty: Medium TOT: 15 min. AACSB: Analytic AICPA FC: Measurement

## PROBLEM 2-4A

- (a) Loeb Company's net income for 2017 is \$248,000 (\$1,800,000 – \$1,175,000 – \$283,000 – \$9,000 – \$85,000). Its earnings per share is \$3.10 (\$248,000 ÷ 80,000 shares outstanding). Bowsh's net income for 2017 is \$142,200 (\$620,000 – \$340,000 – \$98,000 – \$3,800 – \$36,000). Its earnings per share is \$2.84 (\$142,200 ÷ 50,000 shares outstanding).
- (b) Loeb appears to be more liquid. Loeb's 2017 working capital of \$340,875 (\$407,200 – \$66,325) is more than twice as high as Bowsh's working capital of \$156,620 (\$190,336 – \$33,716). In addition, Loeb's 2017 current ratio of 6.1:1 (\$407,200 ÷ \$66,325) is higher than Loeb's current ratio of 5.6:1 (\$190,336 ÷ \$33,716).
- (c) Loeb appears to be slightly more solvent. Loeb's 2017 debt to total assets ratio of 18.6% ( $\$174,825 \div \$939,200$ )<sup>a</sup> is lower than Bowsh's ratio of 22.5% ( $\$74,400 \div \$330,064$ )<sup>b</sup>. The lower the percentage of debt to assets, the lower the risk is that a company may be unable to pay its debts as they come due.

Another measure of solvency, free cash flow, also indicates that Loeb is more solvent. Loeb had \$12,000 (\$138,000 – \$90,000 – \$36,000) of free cash flow while Bowsh had only \$1,000 (\$36,000 – \$20,000 – \$15,000).

<sup>a</sup>\$174,825 (\$66,325 + \$108,500) is Loeb's 2017 total liabilities.  
\$939,200 (\$407,200 + \$532,000) is Loeb's 2017 total assets.

<sup>b</sup>\$74,400 (\$33,716 + \$40,684) is Bowsh's 2017 total liabilities.  
\$330,064 (\$190,336 + \$139,728) is Bowsh's 2017 total assets.

LO 2 BT: AN Difficulty: Hard TOT: 20 min. AACSB: Analytic AICPA FC: Reporting

|                     |
|---------------------|
| <b>PROBLEM 2-5A</b> |
|---------------------|

(a) (i) Working capital = \$458,900 – \$195,500 = \$263,400.

(ii) Current ratio =  $\frac{\$458,900}{\$195,500} = 2.35:1$ .

(iii) Free cash flow = \$190,800 – \$92,000 – \$31,000 = \$67,800

(iv) Debt to assets ratio =  $\frac{\$395,500}{\$1,034,200} = 38.2\%$ .

(v) Earnings per share =  $\frac{\$153,100}{50,000 \text{ shares}} = \$3.06$ .

(b) During 2017, the company's current ratio increased from 1.65:1 to 2.35:1 and its working capital increased from \$160,500 to \$263,400. Both measures indicate an improvement in liquidity during 2017.

The company's debt to assets ratio increased from 31.0% in 2016 to 38.2% in 2017 indicating that the company is less solvent in 2017. Another measure of solvency, free cash flow, increased from \$48,700 to \$67,800. This suggests an improvement in solvency, thus we have conflicting measures of solvency.

Earnings per share decreased from \$3.15 in 2016 to \$3.06 in 2017. This indicates a decline in profitability during 2017.

LO 2 BT: AP Difficulty: Medium TOT: 15 min. AACSB: Analytic AICPA FC: Reporting

## PROBLEM 2-6A

- |     | 2016                                                                                                                                                                                                                                                                                                                                                                     | 2017                                                      |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| (a) | <b>Earnings per share.</b><br><br>$\frac{\$60,000}{30,000 \text{ shares}} = \$2.00$                                                                                                                                                                                                                                                                                      | $\frac{\$70,000}{33,000 \text{ shares}} = \$2.12$         |
| (b) | <b>Working capital.</b><br><br>$(\$20,000 + \$62,000 + \$73,000) - \$70,000 = \$85,000$                                                                                                                                                                                                                                                                                  | $(\$28,000 + \$70,000 + \$90,000) - \$75,000 = \$113,000$ |
| (c) | <b>Current ratio.</b><br><br>$\frac{\$155,000}{\$70,000} = 2.2:1$                                                                                                                                                                                                                                                                                                        | $\frac{\$188,000}{\$75,000} = 2.5:1$                      |
| (d) | <b>Debt to assets ratio.</b><br><br>$\frac{\$160,000}{\$685,000} = 23.4\%$                                                                                                                                                                                                                                                                                               | $\frac{\$155,000}{\$760,000} = 20.4\%$                    |
| (e) | <b>Free cash flow.</b><br>$\$56,000 - \$38,000 - \$15,000 = \$3,000$                                                                                                                                                                                                                                                                                                     | $\$82,000 - \$45,000 - \$20,000 = \$17,000$               |
| (f) | <p><b>Net income and earnings per share have increased, indicating that the underlying profitability of the corporation has improved. The liquidity of the corporation as shown by the working capital and the current ratio has improved slightly. Also, the corporation improved its solvency by improving its debt to assets ratio as well as free cash flow.</b></p> |                                                           |

LO 2 BT: AP Difficulty: Medium TOT: 20 min. AACSB: Analytic AICPA FC: Reporting

## PROBLEM 2-7A

| Ratio                    | Target                                   | Wal-Mart                                       |
|--------------------------|------------------------------------------|------------------------------------------------|
|                          | (All Dollars are in Millions)            |                                                |
| (a) Working capital      | $\$17,488 - \$10,512 = \$6,976$          | $\$48,949 - \$55,390 = (\$6,441)$              |
| (b) Current ratio        | 1.66:1 ( $\$17,488 \div \$10,512$ )      | .88:1 ( $\$48,949 \div \$55,390$ )             |
| (c) Debt to assets ratio | 68.9% ( $\$30,394 \div \$44,106$ )       | 60.0% ( $\$98,144 \div \$163,429$ )            |
| (d) Free cash flow       | $\$4,430 - \$3,547 - \$465$<br>$= \$418$ | $\$23,147 - \$11,499 - \$3,746$<br>$= \$7,902$ |
| (e) Earnings per share   | $\$2.86 = \frac{\$2,214}{774}$           | $\$3.39 = \frac{\$13,400}{3,951}$              |

(f) The comparison of the two companies shows the following:

**Liquidity**—Target's current ratio of 1.66:1 is much better than Wal-Mart's .88:1 and Target has significantly higher working capital than Wal-Mart.

**Solvency**—Wal-Mart's debt to assets ratio is about 13% less than Target's and its free cash flow is much larger.

LO 2 BT: AP Difficulty: Medium TOT: 20 min. AACSB: Analytic AICPA FC: Reporting

## PROBLEM 2-8A

- (a) Accounting information is the compilation and presentation of financial information for a company. It provides information in the form of financial statements and additional disclosures that is useful for decision making.

The accounting rules and practices that have substantial authoritative support and are recognized as a general guide for financial reporting purposes are referred to as generally accepted accounting principles (GAAP). The biotechnology company that employs Saira will follow GAAP to report its assets, liabilities, stockholders' equity, revenues, and expenses as it prepares financial statements.

- (b) Saira is correct in her understanding that the low success rate for new biotech products will be a cause of concern for investors. Her suggestion that detailed scientific findings be reported to prospective investors might offset some of their concerns but it probably won't conform to the qualitative characteristics of accounting information.

These characteristics consist of relevance, faithful representation, comparability, consistency, verifiability, timeliness, and understandability. They apply to accounting information rather than the scientific findings that Saira wants to include.

LO 3 BT: E Difficulty: Medium TOT: 15 min. AACSB: Reflective Thinking AICPA FC: Measurement and Reporting

- (a) Total current assets were \$68,531,000 at September 27, 2014, and \$73,286,000 at September 28, 2013.
- (b) Current assets are properly listed in the order of liquidity. As you will learn in a later chapter, inventories are considered to be less liquid than receivables. Thus, they are listed below receivables and before prepaid expenses.
- (c) The asset classifications are similar to the text: (a) current assets, (b) Long-term marketable securities, (c) property, plant, and equipment, and (d) intangibles.
- (d) Total current liabilities were \$63,448,000 at September 27, 2014, and \$43,658,000 at September 28, 2013.

LO 1 BT: AP Difficulty: Medium TOT: 8 min. AACSB: Analytic AICPA FC: Reporting

| (a)                     | (\$ in thousands) | Columbia Sports wear                         | VFC                                               |
|-------------------------|-------------------|----------------------------------------------|---------------------------------------------------|
| 1. Working capital      |                   | $\$1,266,041 - \$373,120 = \$892,921$        | $\$4,185,854 - \$1,620,241 = \$2,565,613$         |
| 2. Current ratio        |                   | $\$1,266,041 \div \$373,120 = 3.4:1$         | $\$4,185,854 \div \$1,620,241 = 2.6:1$            |
| 3. Debt to assets ratio |                   | $\frac{\$436,975}{\$1,792,209} = 24.4\%$     | $\frac{\$4,349,258^*}{\$9,980,140} = 43.6\%$      |
| 4. Free cash flow       |                   | $\$185,783 - \$60,283 - \$39,836 = \$85,664$ | $\$1,697,629 - \$234,077 - \$478,933 = \$984,619$ |

\* $\$1,620,241 + \$1,423,581 + \$1,305,436$

(b) **Liquidity**

VFC Company appears much more liquid since it has about \$1,673 million more working capital than Columbia. But, looking at the current ratios, we see that Columbia's ratio is more than 1.3 times as large as VFC's.

**Solvency**

Based on the debt to assets ratio, Columbia is more solvent. Columbia's debt to assets ratio is significantly lower than VFC's and, therefore, Columbia would be considered better able to pay its debts as they come due.

Comparing free cash flow, VFC generates much more excess cash than Columbia—\$984.6 million versus \$85.7 million.

LO 2 BT: AN Difficulty: Hard TOT: 10 min. AACSB: Analytic AICPA FC: Reporting

| (a) | (\$ in millions)     | Amazon                                 | Wal-Mart                                  |
|-----|----------------------|----------------------------------------|-------------------------------------------|
| 1.  | Working capital      | $\$31,327 - \$28,089 = \$3,238$        | $\$63,278 - \$65,272 = \$(-1,994)$        |
| 2.  | Current ratio        | $\$31,327 \div \$28,089 = 1.1:1$       | $\$63,278 \div \$65,272 = .97:1$          |
| 3.  | Debt to assets ratio | $\frac{\$43,764^*}{\$54,505} = 80.3\%$ | $\frac{\$122,312}{\$203,706} = 60.0\%$    |
| 4.  | Free cash flow       | $\$6,842 - \$4,893 - \$0 = \$1,949$    | $\$28,564 - \$12,174 - \$6,785 = \$9,605$ |

\*\$28,089 + \$8,265 + \$7,410

(b) **Liquidity**

Amazon appears more liquid since it has \$5,232 million more working capital than Wal-Mart. Also, Amazon's current ratio is slightly better than Wal-Mart's.

**Solvency**

Based on the debt to assets ratio, Wal-Mart is more solvent. Wal-Mart's debt to assets ratio is significantly lower than Amazon's and, therefore, Wal-Mart would be considered better able to pay its debts as they come due. Comparing free cash flow, Wal-Mart generates much more excess cash than Amazon.

LO 2 BT: AN Difficulty: Hard TOT: 10 min. AACSB: Analytic AICPA FC: Reporting

- (a) The percentage decrease in Gap's total assets during this period is calculated as:

$$\frac{\$7,065 - \$8,544}{\$8,544} = 17.3\%$$

The average decrease per year can be approximated as:

$$\frac{17.3\%}{4 \text{ years}} = 4.3\% \text{ per year}$$

- (b) Gap's working capital and current ratio decreased (2014), increased (2015 and 2016) and then decreased (2017) during this period, indicating a decline, an improvement and then another decline in liquidity. The current ratio is a better measure of liquidity because it provides a relative measure; that is, current assets compared to current liabilities. Working capital only tells us the net amount of current assets less current liabilities. It is hard to say whether a given amount of working capital is adequate or inadequate without knowing the size of the company.
- (c) The debt to assets ratio suggests that Gap's solvency didn't change much during the period. Debt to assets was .39 in 2013, rose to .45 in 2014 and then came back down to .42 in 2017.
- (d) The earnings per share suggests that Gap's profitability improved significantly from 2013 to 2017, increasing from \$0.94 to \$1.89. However, based on the years shown, it appears that earnings varied a great deal during this period.

LO 2 BT: AN Difficulty: Hard TOT: 15 min. AACSB: Analytic AICPA FC: Reporting

## REAL-WORLD FOCUS

### CT 2-5

**Answers will vary depending on the company chosen and the date.**

LO 2 BT: AN Difficulty: Hard TOT: 20 min. AACSB: Analytic and Technology AICPA FC: Reporting

### CT 2-6

**Answers will vary depending on the company chosen and the date.**

LO 1, 2 BT: E Difficulty: Hard TOT: 25 min. AACSB: Analytic, Technology, and Reflective Thinking  
AICPA FC: Reporting AICPA BB: Critical Thinking

- (a) Many large companies, big accounting firms, and accounting standard setters tend to favor a switch to IFRS because they believe that global accounting standards would save companies money by consolidating their bookkeeping. They also believe it would make it easier to raise capital around the world. In addition, investors would have less trouble comparing companies from different countries. They also feel that having international accounting standards would lead to an improvement in the enforcement of securities laws.
- (b) Many small companies are opposed to switching to IFRS because (1) they say that the switch would be very costly, and (2) because they don't have operations outside of the U.S., so they see any benefit to their company of using international standards.
- (c) It has been suggested that IFRS lacks standards that are specific to utility companies that U.S. GAAP contains.
- (d) Condorsement (a word invented by the SEC) represents a combination of convergence and endorsement. Under condorsement, U.S. standard setters would continue to work with international standard setters to try to reduce differences in standards. In addition, as new international standards are issued, U.S. standard setters would review those standards and consider whether to endorse them by absorbing them into U.S. GAAP.

LO 3 BT: AN Difficulty: Medium TOT: 20 min. AACSB: Analytic AICPA FC: Reporting

The current ratio increase is a favorable indication as to liquidity, but alone tells little about the prospects of the client. From this ratio change alone, it is impossible to know the amount and direction of the changes in individual accounts, total current assets, and total current liabilities. Also unknown are the reasons for the changes.

The working capital increase is also a favorable indication as to liquidity, but again the amount and direction of the changes in individual current assets and current liabilities cannot be determined from this measure.

The increase in free cash flow is a favorable indicator for solvency. An increase in free cash flow means the company can replace assets, pay dividends, and have “free cash” available to pay down debt or expand operations.

The decrease in the debt to assets ratio is a favorable indicator for solvency and going-concern prospects. The lower the percentage of debt to assets, the lower the risk that a company may be unable to pay its debts as they come due. A decline in the debt to assets ratio is also a positive sign regarding going-concern potential.

The increase in net income is a favorable indicator for both solvency and profitability prospects although much depends on the quality of receivables generated from sales and how quickly they can be converted into cash. A significant factor here may be that despite a decline in sales the client’s management has been able to reduce costs to produce this increase. Indirectly, the improved income picture may have a favorable impact on solvency and going-concern potential by enabling the client to borrow currently to meet cash requirements.

The earnings per share increase is a favorable indicator for profitability. A 109% (from \$1.15 to \$2.40) increase indicates a significant increase in net income and provides a favorable sign regarding going-concern potential.

LO 2 BT: E Difficulty: Hard TOT: 20 min. AACSB: Communication and Reflective Thinking AICPA PC: Interaction, Leadership, and Communication

**To:** B. P. Palmer  
**From:** Accounting Major  
**Subject:** Financial Statement Analysis

(a) Ratios can be classified into three types, which measure three different aspects of a company's financial health:

1. **Liquidity ratios**—These measure a company's ability to pay its current obligations.
2. **Solvency ratios**—These measure a company's ability to pay its long-term obligations and survive over the long-term.
3. **Profitability ratios**—These measure the ability of the company to generate a profit.

(b) 1. Examples of liquidity measures are:

**Working capital = Current assets – Current liabilities**

**Current ratio =  $\frac{\text{Current assets}}{\text{Current liabilities}}$**

2. Examples of solvency measures are:

**Debt to assets ratio =  $\frac{\text{Total liabilities}}{\text{Total assets}}$**

**Free cash flow = Cash provided by operating activities –  
Capital expenditures – Cash dividends**

## CT 2-9 (Continued)

### 3. Example of profitability measure:

$$\text{Earnings per share} = \frac{\text{Net income} - \text{Preferred dividends}}{\text{Average common shares outstanding}}$$

(c) There are three bases for comparing a company's results:

The bases of comparison are:

1. **Intracompany**—This basis compares an item or financial relationship within a company in the current year with the same item or relationship in one or more prior years.
2. **Industry averages**—This basis compares an item or financial relationship of a company with industry averages (or norms).
3. **Intercompany**—This basis compares an item or financial relationship of one company with the same item or relationship in one or more competing companies.

LO 2 BT: AP Difficulty: Medium TOT: 18 min. AACSB: Communication AICPA PC: Communication

- (a) The stakeholders in this case are: Boeing's management; CEO, public relations manager, Boeing's stockholders, McDonnell Douglas stockholders, other users of the financial statements; especially potential investors of the new combined company.
- (b) The ethical issues center around full disclosure of financial information. Management attempted to "time" the release of bad news in order to complete a merger that would have been revoked if cost overruns had been disclosed as soon as management became aware of them.
- (c) The periodicity assumption requires that financial results be reported on specific, pre-determined dates.  
The full disclosure principle requires that all circumstances and events that make a difference to financial statement users must be disclosed.
- (d) It is not ethical to "time" the release of bad news. GAAP requires that all significant financial information be released to allow users to make informed decisions.
- (e) Answers will vary. One possibility: Release the information regarding cost overruns as it became available. Describe the causes of such overruns and explain how Boeing would address them (probably by improving production methods to eliminate the inefficiencies alluded to in the text).
- (f) Investors and analysts should be aware that Boeing's management will probably "manage" information in the future in ways that will interfere with full disclosure.

LO 3 BT: E Difficulty: Hard TOT: 20 min. AACSB: Ethics AICPA FC: Measurement AICPA PC: Personal Demeanor

**Answers will vary.**

**LO - BT: S Difficulty: Hard TOT: 30 min. AACSB: Communication and Reflective Thinking AICPA CC: Critical Thinking AICPA PC: Communication**

- (a) 1. **Current assets** is used to designate cash and other assets or resources commonly identified as those that are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business.
2. **Current liabilities** is used principally to designate obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets, or the creation of other current liabilities.

(b) **Access FASB Codification 210-20-45**

**A right of set off exists when all of the following conditions are met:**

- 1. Each of two parties owes the other determinable amounts.**
- 2. The reporting party has the right to set off the amount owed with the amount owed by the other party.**
- 3. The reporting party intends to set off.**
- 4. The right of set off is enforceable at law. As a result, a company may not offset accounts payable against cash on its balance sheet.**

**LO 1 BT: C Difficulty: Medium TOT: 15 min. AACSB: Analytic and Technology AICPA FC: Measurement**

- (a) The existence of three different forms of certification would most likely create confusion for coffee purchasers. It would difficult to know what aspects of the coffee growing process each certification covered. Similarly, if there were multiple groups that certified financial statements, each with different criteria, it would be difficult for financial statement users to know what each certification promised.
- (b) The Starbucks certification appears to be the most common in that area. It has the advantage of having a direct link to the Starbucks coffee market. Although it does not guarantee that Starbucks will buy its coffee, it is a requirement that must be met before Starbucks will buy somebody's coffee. Note that the article states that the Starbucks certification "incorporates elements of social responsibility and environmental leadership, but quality of coffee is the first criteria." The Smithsonian Bird Friendly is considered to have the strictest requirements and, as a result, appears to be the least common.
- (c) The certifications have multiple objectives including organic farming as a means to protect bird species, biodiversity and wildlife habitat. Some included requirements are to improve workers' living conditions, such as providing running water in worker housing, child labor regulations and education requirements. As mentioned above, the Starbucks certification has the potential financial benefit of making Starbucks a potential customer, which can stabilize farmers' earnings. Certifications can also be financially beneficial because companies can benefit from the positive public relations effects of either producing or buying coffee produced using sustainable practices.

LO - BT: S Difficulty: Hard TOT: 30 min. AACSB: Technology and Reflective Thinking AICPA FC: Measurement and Reporting AICPA BB: Critical Thinking and Resource Management

## IFRS 2-1

The statement of financial position required under IFRS and the balance sheet prepared under GAAP usually present the same information regarding a company's assets, liabilities, and stockholders' equity at a point in time. IFRS does not dictate a specific order but most companies list noncurrent items before current. Differences in ordering are

| Statement of Financial<br>Position presentation | Balance Sheet<br>presentation |
|-------------------------------------------------|-------------------------------|
| Noncurrent assets                               | Current assets                |
| Current assets                                  | Noncurrent assets             |
| Equity                                          | Current liabilities           |
| Noncurrent liabilities                          | Noncurrent liabilities        |
| Current liabilities                             | Stockholders' equity          |

Under IFRS, current assets are usually listed in the reverse order of liquidity.

LO 4 BT: C Difficulty: Easy TOT: 5 min. AACSB: Diversity AICPA FC: Reporting AICPA BB: International/Global

## IFRS 2-2

IFRS uses statement of financial position rather than balance sheet.

LO 4 BT: K Difficulty: Easy TOT: 3 min. AACSB: Diversity AICPA FC: Measurement AICPA BB: International/Global

**SUNDELL COMPANY**  
**Partial Statement of Financial Position**

---

|                                  |                       |
|----------------------------------|-----------------------|
| <b>Current assets</b>            |                       |
| <b>Prepaid insurance .....</b>   | <b>£ 3,600</b>        |
| <b>Supplies .....</b>            | <b>5,200</b>          |
| <b>Accounts receivable .....</b> | <b>12,500</b>         |
| <b>Debt investments .....</b>    | <b>6,700</b>          |
| <b>Cash .....</b>                | <b>15,400</b>         |
| <b>Total .....</b>               | <b><u>£43,400</u></b> |

LO 1 BT: K Difficulty: Easy TOT: 2 min. AACSB: Diversity AICPA FC: Reporting AICPA BB: International/Global

**LESSILA BOWLING ALLEY**  
**Statement of Financial Position**  
**December 31, 2017**

| <b>Assets</b>                                |               |               |                         |
|----------------------------------------------|---------------|---------------|-------------------------|
| <b>Property, plant, and equipment</b>        |               |               |                         |
| Land .....                                   |               | \$64,000      |                         |
| Buildings .....                              | \$128,800     |               |                         |
| Less: Acc. depr.—buildings .....             | <u>42,600</u> | 86,200        |                         |
| Equipment .....                              | 62,400        |               |                         |
| Less: Acc. depr.—equipment .....             | <u>18,720</u> | <u>43,680</u> | \$193,880               |
| <b>Current assets</b>                        |               |               |                         |
| Prepaid insurance.....                       |               | 4,680         |                         |
| Accounts receivable.....                     |               | 14,520        |                         |
| Cash.....                                    |               | <u>18,040</u> | <u>37,240</u>           |
| <b>Total assets .....</b>                    |               |               | <b><u>\$231,120</u></b> |
| <b>Equity and Liabilities</b>                |               |               |                         |
| <b>Equity</b>                                |               |               |                         |
| Share capital—ordinary .....                 | \$100,000     |               |                         |
| Retained earnings (\$15,000 + \$3,440*)..... | <u>18,440</u> |               | \$118,440               |
| <b>Non-current liabilities</b>               |               |               |                         |
| Notes payable .....                          |               |               | 83,880                  |
| <b>Current liabilities</b>                   |               |               |                         |
| Current portion of notes payable .....       | 13,900        |               |                         |
| Accounts payable .....                       | 12,300        |               |                         |
| Interest payable .....                       | <u>2,600</u>  |               | <u>28,800</u>           |
| <b>Total equity and liabilities .....</b>    |               |               | <b><u>\$231,120</u></b> |

**\*Net income = \$14,180 – \$780 – \$7,360 – \$2,600 = \$3,440**

**(Assets = Equity + Liabilities)**

**LO 1 BT: AP Difficulty: Medium TOT: 3 min. AACSB: Diversity AICPA FC: Reporting AICPA BB: International/Global**

## IFRS 2-5 INTERNATIONAL COMPARATIVE ANALYSIS PROBLEM

Differences in the format of the statement of financial position (balance sheet) used by Vuitton and Apple include the following:

|    | Vuitton                                                                     | Apple                                                                |
|----|-----------------------------------------------------------------------------|----------------------------------------------------------------------|
| 1. | Non-current assets listed first                                             | Current assets listed first                                          |
| 2. | Goodwill listed before property, plant and equipment                        | Property, plant, and equipment listed before goodwill                |
| 3. | Current assets are shown in reverse order of liquidity with cash being last | Current assets are shown in order of liquidity with cash being first |
| 4. | The equity section is shown before liabilities                              | Liabilities are shown before the equity section                      |
| 5. | Long-term liabilities are shown before current liabilities                  | Current liabilities are shown before long-term liabilities           |
| 6. | The equity section uses Share capital and Share premium                     | The equity section uses Common stock and additional paid-in capital  |
| 7. | Reporting currency is € (euros)                                             | Reporting currency is \$ (dollars)                                   |

LO 1 BT: AP Difficulty: Medium TOT: 5 min. AACSB: Diversity AICPA FC: Reporting AICPA BB: International/Global



# APPENDIX G

## Time Value of Money

### SOLUTIONS TO BRIEF EXERCISES

#### BRIEF EXERCISE G-1

- (a) Interest =  $p \times i \times n$   
 $I = \$6,000 \times .05 \times 12 \text{ years}$   
 $I = \$3,600$

Accumulated amount =  $\$6,000 + \$3,600 = \underline{\$9,600}$

- (b) Future value factor for 12 periods at 5% is 1.79586 (from Table 1)

Accumulated amount =  $\$6,000 \times 1.79586 = \underline{\$10,775.16}$

LO 1 BT: AP Difficulty: Easy TOT: 6 min. AACSB: Analytic AICPA FC: Reporting

#### BRIEF EXERCISE G-2

- |     |        |    |           |     |        |    |            |
|-----|--------|----|-----------|-----|--------|----|------------|
| (1) | Case A | 5% | 3 periods | (2) | Case A | 3% | 8 periods  |
|     | Case B | 6% | 8 periods |     | Case B | 4% | 12 periods |

LO 1 BT: C Difficulty: Easy TOT: 3 min. AACSB: None AICPA FC: Reporting

#### BRIEF EXERCISE G-3

$FV = p \times FV \text{ of } 1 \text{ factor}$   
 $= \$9,600 \times 1.60103$   
 $= \underline{\$15,369.89}$

LO 1 BT: AP Difficulty: Easy TOT: 3 min. AACSB: Analytic AICPA FC: Reporting

## BRIEF EXERCISE G-4

$$\begin{aligned}\text{FV of an annuity of 1} &= p \times \text{FV of an annuity factor} \\ &= \$78,000 \times 13.18079 \\ &= \underline{\underline{\$1,028,101.62}}\end{aligned}$$

LO 1 BT: AP Difficulty: Easy TOT: 3 min. AACSB: Analytic AICPA FC: Reporting

## BRIEF EXERCISE G-5

$$\begin{aligned}\text{FV} &= (p \times \text{FV of 1 factor}) + (p \times \text{FV of an annuity factor}) \\ &= (\$8,000 \times 2.40662) + (\$1,000 \times 28.13238) \\ &= \$19,252.96 + \$28,132.38 \\ &= \underline{\underline{\$47,385.34}}\end{aligned}$$

$$((p \times \text{FV of 1 factor}) + (p \times \text{FV of an annuity factor}))$$

LO 1 BT: AP Difficulty: Medium TOT: 6 min. AACSB: Analytic AICPA FC: Reporting

## BRIEF EXERCISE G-6

$$\begin{aligned}\text{FV} &= p \times \text{FV of 1 factor} \\ &= \$35,000 \times 1.46933 \\ &= \underline{\underline{\$51,426.55}}\end{aligned}$$

LO 1 BT: AP Difficulty: Easy TOT: 3 min. AACSB: Analytic AICPA FC: Reporting

## BRIEF EXERCISE G-7

$$\begin{aligned}\text{FV of an annuity} &= p \times \text{FV of an annuity factor} \\ \$20,000 &= p \times 9.89747 \\ p &= \$20,000 \div 9.89747 \\ p &= \$2,020.72\end{aligned}$$

$$(\text{FV of an annuity} = \text{Annuity} \times \text{FV of an annuity factor})$$

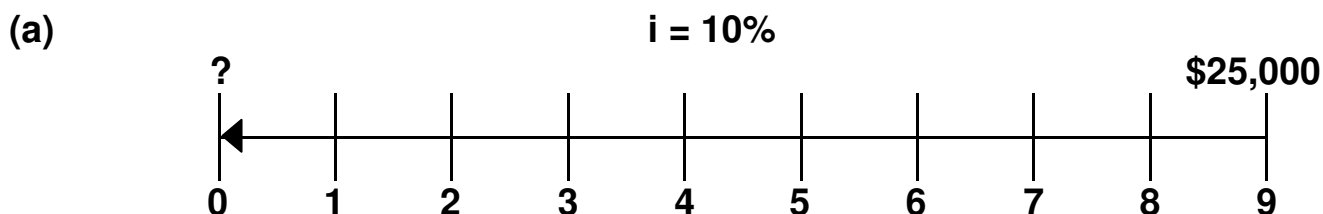
LO 1 BT: AP Difficulty: Medium TOT: 6 min. AACSB: Analytic AICPA FC: Reporting

## BRIEF EXERCISE G-8

|     | (a) | (b)        |
|-----|-----|------------|
| (1) | 12% | 7 periods  |
|     | 8%  | 11 periods |
|     | 5%  | 16 periods |
| (2) | 10% | 20 periods |
|     | 10% | 7 periods  |
|     | 3%  | 10 periods |

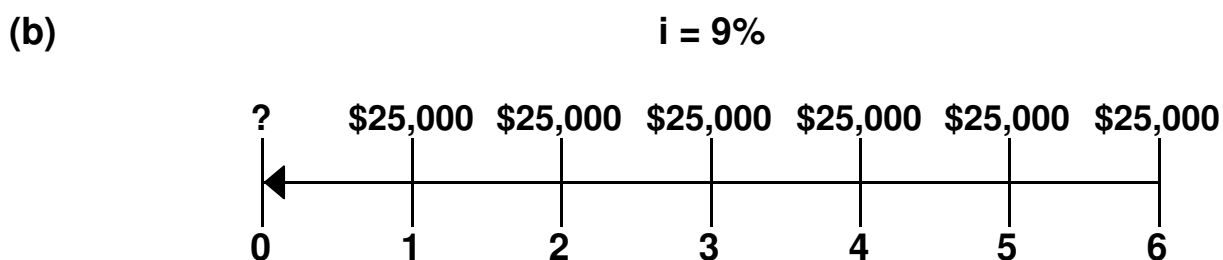
LO 2 BT: C Difficulty: Easy TOT: 3 min. AACSB: None AICPA FC: Reporting

## BRIEF EXERCISE G-9



Discount rate from Table 3 is .42410 (9 periods at 10%). Present value of \$25,000 to be received in 9 years discounted at 10% is therefore \$10,602.50 (\$25,000 X .42410).

(PV of an amount = Amount X PV of 1 factor)

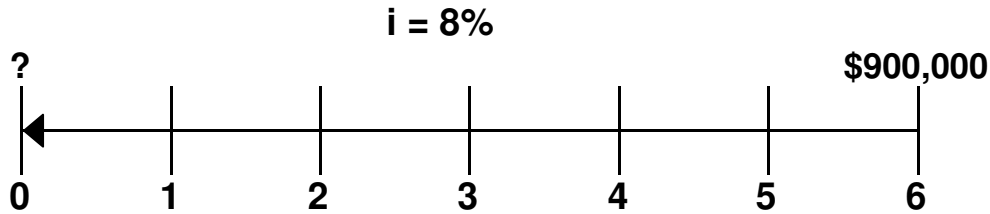


Discount rate from Table 4 is 4.48592 (6 periods at 9%). Present value of 6 payments of \$25,000 each discounted at 9% is therefore \$112,148.00 (\$25,000 X 4.48592).

(PV of an annuity = Annuity X PV of an annuity factor)

LO 2 BT: AP Difficulty: Easy TOT: 5 min. AACSB: Analytic AICPA FC: Reporting

## BRIEF EXERCISE G-10

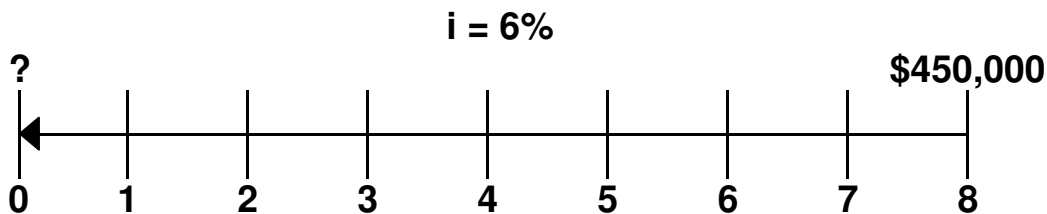


Discount rate from Table 3 is .63017 (6 periods at 8%). Present value of \$900,000 to be received in 6 years discounted at 8% is therefore \$567,153 ( $\$900,000 \times .63017$ ). Messi Company should therefore invest \$567,153 to have \$900,000 in six years.

(PV of an amount = Amount  $\times$  PV of 1 factor)

LO 2 BT: AP Difficulty: Easy TOT: 3 min. AACSB: Analytic AICPA FC: Reporting

## BRIEF EXERCISE G-11



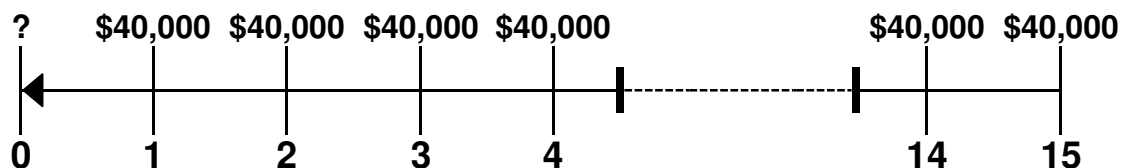
Discount rate from Table 3 is .62741 (8 periods at 6%). Present value of \$450,000 to be received in 8 years discounted at 6% is therefore \$282,334.50 ( $\$450,000 \times .62741$ ). Lloyd Company should invest \$282,334.50 to have \$450,000 in eight years.

(PV of an amount = Amount  $\times$  PV of 1 factor)

LO 2 BT: AP Difficulty: Easy TOT: 3 min. AACSB: Analytic AICPA FC: Reporting

## BRIEF EXERCISE G-12

$i = 8\%$



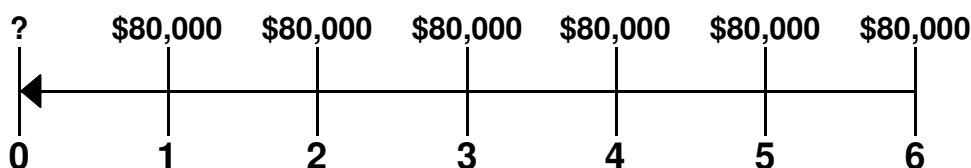
Discount rate from Table 4 is 8.55948. Present value of 15 payments of \$40,000 each discounted at 8% is therefore \$342,379.20 (\$40,000 X 8.55948). Robben Company should pay \$342,379.20 for this annuity contract.

(PV of an annuity = Annuity X PV of an annuity factor)

LO 2 BT: AP Difficulty: Easy TOT: 3 min. AACSB: Analytic AICPA FC: Reporting

## BRIEF EXERCISE G-13

$i = 5\%$

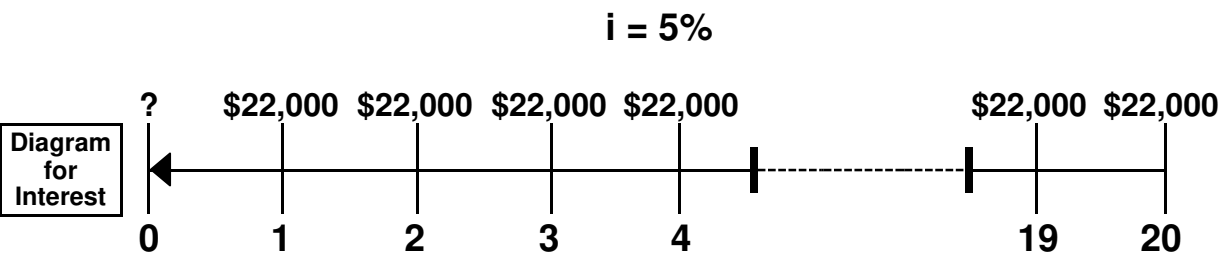
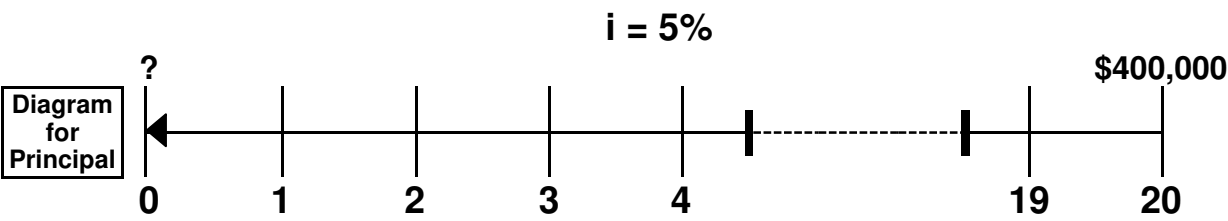


Discount rate from Table 4 is 5.07569. Present value of 6 payments of \$80,000 each discounted at 5% is therefore \$406,055.20 (\$80,000 X 5.07569). Kaehler Enterprises invested \$406,055.20 to earn \$80,000 per year for six years.

(PV of an annuity = Annuity X PV of an annuity factor)

LO 2 BT: AP Difficulty: Easy TOT: 3 min. AACSB: Analytic AICPA FC: Reporting

BRIEF EXERCISE G-14



|                                                        |                    |
|--------------------------------------------------------|--------------------|
| Present value of principal to be received at maturity: |                    |
| \$400,000 X 0.37689 (PV of \$1 due in 20 periods       |                    |
| at 5% from Table 3) .....                              |                    |
|                                                        | \$150,756          |
| Present value of interest to be received periodically  |                    |
| over the term of the bonds: \$22,000* X 12.46221       |                    |
| (PV of \$1 due each period for 20 periods at 5%        |                    |
| from Table 4).....                                     |                    |
|                                                        | <u>274,169**</u>   |
| Present value of bonds .....                           | <u>\$424,925**</u> |

\*\$400,000 X .055  
\*\*Rounded.

(PV of bond = (Face value of bond X PV of 1 factor) + (Annual interest X PV of an annuity factor))

LO 2 BT: AP Difficulty: Medium TOT: 10 min. AACSB: Analytic AICPA FC: Reporting

## BRIEF EXERCISE G-15

The bonds will sell at a discount (for less than \$400,000). This may be proven as follows:

Present value of principal to be received at maturity:

|                                                                             |           |
|-----------------------------------------------------------------------------|-----------|
| \$400,000 X .31180 (PV of \$1 due in 20 periods<br>at 6% from Table 3)..... | \$124,720 |
|-----------------------------------------------------------------------------|-----------|

Present value of interest to be received periodically

over the term of the bonds: \$22,000 X 11.46992

(PV of \$1 due each period for 20 periods at 6%

|                     |                 |
|---------------------|-----------------|
| from Table 4) ..... | <u>252,338*</u> |
|---------------------|-----------------|

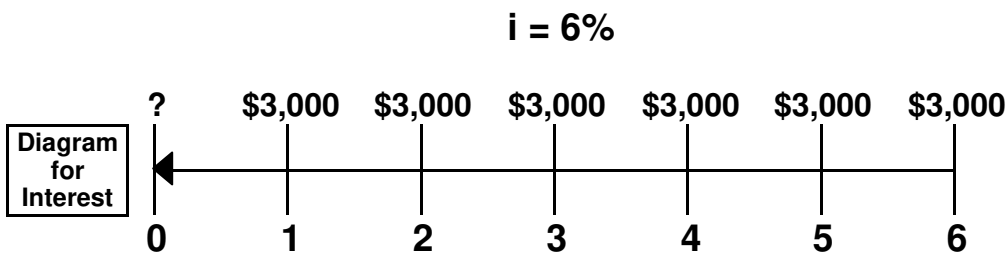
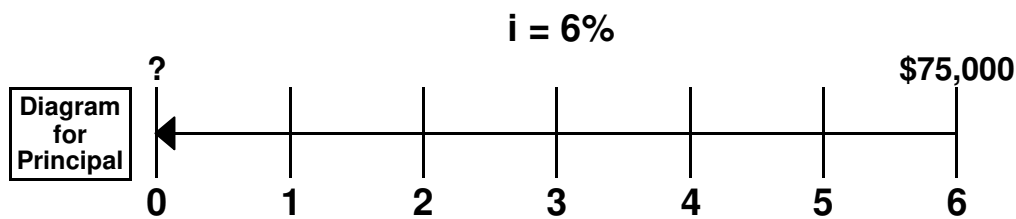
|                              |                          |
|------------------------------|--------------------------|
| Present value of bonds ..... | <u><u>\$377,058*</u></u> |
|------------------------------|--------------------------|

\*Rounded.

(PV of bond = (Face value of bond X PV of 1 factor) + (Annual interest X PV of an annuity factor)

LO 2 BT: AP Difficulty: Medium TOT: 10 min. AACSB: Analytic AICPA FC: Reporting

BRIEF EXERCISE G-16



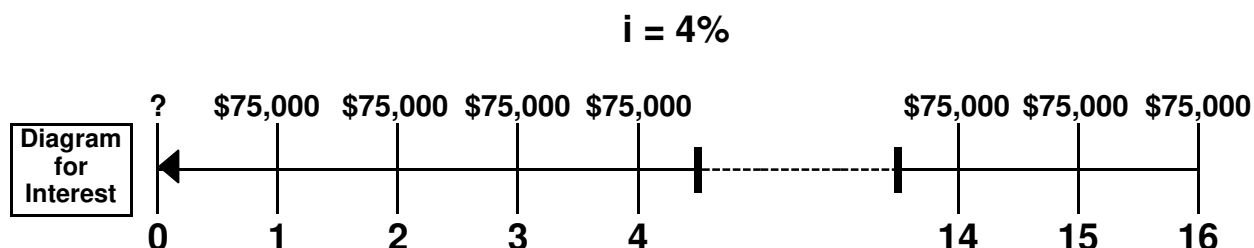
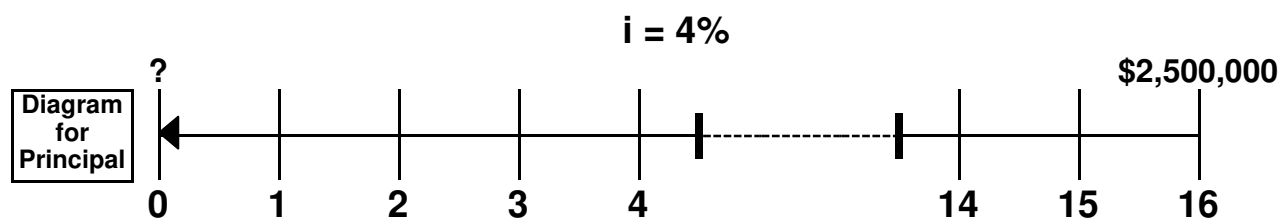
|                                                        |                    |
|--------------------------------------------------------|--------------------|
| Present value of principal to be received at maturity: |                    |
| \$75,000 X .70496 (PV of \$1 due in 6 periods          |                    |
| at 6% from Table 3) .....                              |                    |
|                                                        | \$52,872.00        |
| Present value of interest to be received annually      |                    |
| over the term of the note: \$3,000* X 4.91732          |                    |
| (PV of \$1 due each period for 6 periods at            |                    |
| 6% from Table 4) .....                                 |                    |
|                                                        | 14,751.96          |
| Present value of note received .....                   | <u>\$67,623.96</u> |

$*\$75,000 \times .04$

$(PV \text{ of note} = (PV \text{ of principal} \times PV \text{ of 1 factor}) + (Annual \text{ interest} \times PV \text{ of an annuity factor}))$

LO 2 BT: AP Difficulty: Medium TOT: 10 min. AACSB: Analytic AICPA FC: Reporting

## BRIEF EXERCISE G-17



**Present value of principal to be received at maturity:**

$\$2,500,000 \times 0.53391$  (PV of \$1 due in 16 periods  
at 4% from Table 3)..... **\$1,334,775**

**Present value of interest to be received periodically  
over the term of the bonds:  $\$75,000^* \times 11.65230$   
(PV of \$1 due each period for 16 periods at 4%  
from Table 4) .....**

**873,923\*\***

**Present value of bonds and cash proceeds ..... \$2,208,698\*\***

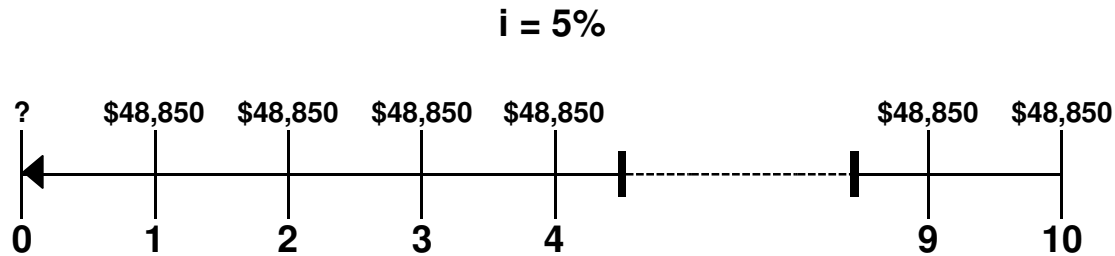
**\* $(\$2,500,000 \times .06 \times 1/2)$**

**\*\*Rounded**

**(PV of bond = (Face value of bond  $\times$  PV of 1 factor) + (Annual interest  $\times$  PV of an annuity factor))**

**LO 2 BT: AP Difficulty: Medium TOT: 10 min. AACSB: Analytic AICPA FC: Reporting**

## BRIEF EXERCISE G-18

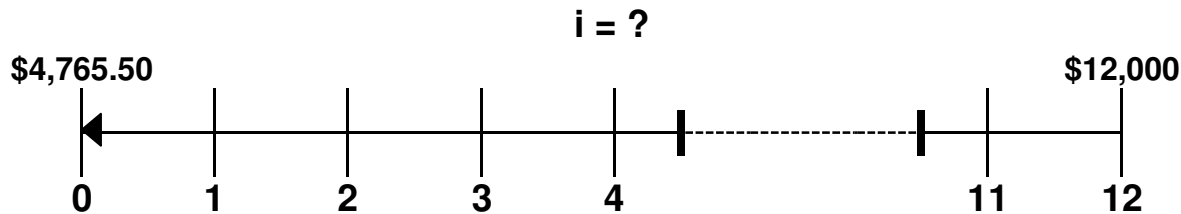


Discount rate from Table 4 is 7.72173. Present value of 10 payments of \$48,850 each discounted at 5% is therefore \$377,206.51 (\$48,850 X 7.72173). Frazier Company should receive \$377,206.51 from the issuance of the note.

(PV of proceeds = Annual payment  $\times$  PV of an annuity factor)

LO 2 BT: AP Difficulty: Easy TOT: 5 min. AACSB: Analytic AICPA FC: Reporting

## BRIEF EXERCISE G-19



Present value = Future value X Present value of 1 factor

\$4,765.50 = \$12,000 X Present value of 1 factor

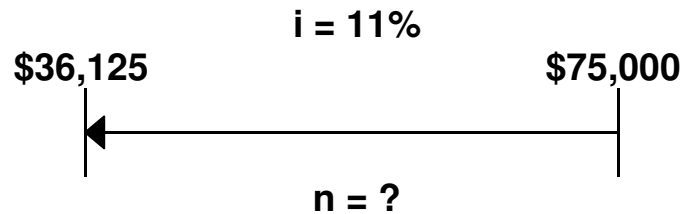
Present value of 1 factor = \$4,765.50  $\div$  \$12,000 = .39713

The .39713 for 12 periods approximates the value found in the 8% column (.39711) in Table 3. Colleen Mooney will receive a 8% return.

(PV of 1 factor = Present amount  $\div$  Future amount)

LO 2 BT: AP Difficulty: Medium TOT: 5 min. AACSB: Analytic AICPA FC: Reporting

## BRIEF EXERCISE G-20



**Present value = Future value X Present value of 1 factor**

$$\text{\$36,125} = \text{\$75,000} \times \text{Present value of 1 factor}$$

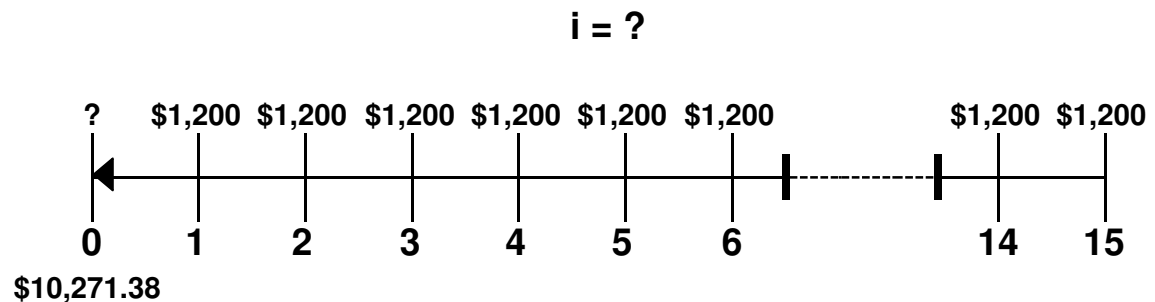
$$\text{Present value of 1 factor} = \text{\$36,125} \div \text{\$75,000} = .48166$$

The .48166 at 11% is found in the 7 years row in Table 3. Tim Howard therefore must wait 7 years to receive \$75,000.

(PV of 1 factor = Present amount ÷ Future amount)

LO 2 BT: AP Difficulty: Medium TOT: 5 min. AACSB: Analytic AICPA FC: Reporting

## BRIEF EXERCISE G-21



**Present value = Future amount X Present value of an annuity factor**

$$\text{\$10,271.38} = \$1,200 \times \text{Present value of an annuity factor}$$

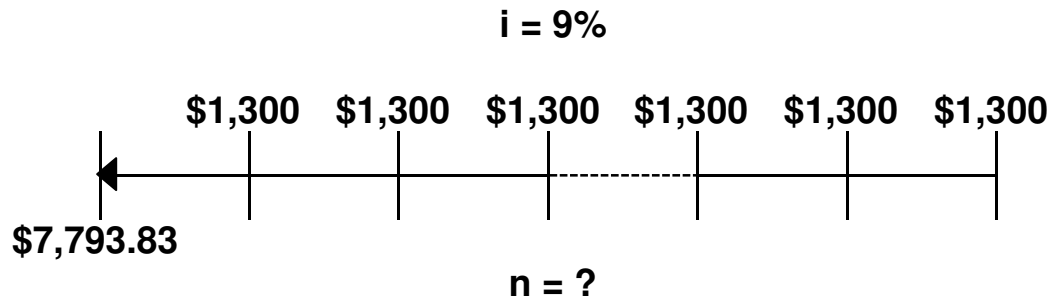
$$\text{Present value of an annuity factor} = \text{\$10,271.38} \div \$1,200 = 8.55948$$

The 8.55948 for 15 periods is found in the 8% column in Table 4. Joanne Quick will therefore earn a rate of return of 8%.

(PV of an annuity factor = Present amount ÷ Annuity)

LO 2 BT: AP Difficulty: Medium TOT: 5 min. AACSB: Analytic AICPA FC: Reporting

## BRIEF EXERCISE G-22



Present value = Future amount X Present value of an annuity factor

$$\$7,793.83 = \$1,300 \times \text{Present value of an annuity factor}$$

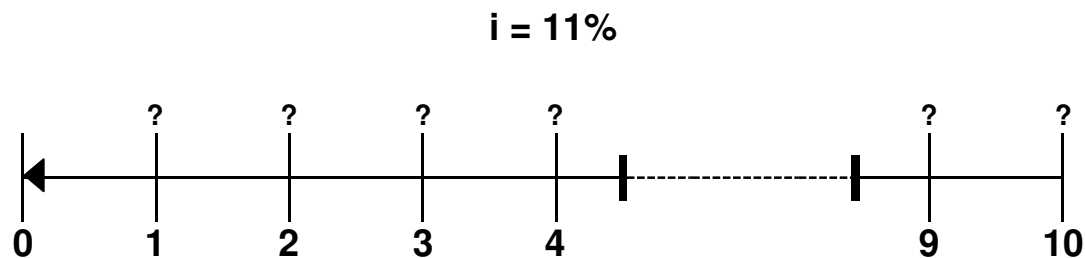
$$\text{Present value of an annuity factor} = \$7,793.83 \div \$1,300 = 5.99525$$

The 5.99525 at an interest rate of 9% is shown in the 9-year row in Table 4. Therefore, Kevin will receive 9 payments.

(PV of an annuity factor = Present amount  $\div$  Annuity)

LO 2 BT: AP Difficulty: Medium TOT: 5 min. AACSB: Analytic AICPA FC: Reporting

## BRIEF EXERCISE G-23



PV of an annuity =  $p \times$  Present value of an annuity factor

$$\$2,650.15 = p \times 5.88923$$

$$p = \$2,650.15 \div 5.88923$$

$$p = \$450$$

(Annuity = PV of an annuity  $\div$  PV of an annuity factor)

LO 2 BT: AP Difficulty: Medium TOT: 5 min. AACSB: Analytic AICPA FC: Reporting

### BRIEF EXERCISE G-24

10\*                      ?                      -18,000                      0                      50,000

|   |        |    |     |    |
|---|--------|----|-----|----|
| N | I/YR.  | PV | PMT | FV |
|   | 10.76% |    |     |    |

\*2027 – 2017

LO 3 BT: AP Difficulty: Easy TOT: 4 min. AACSB: Analytic AICPA FC: Reporting

### BRIEF EXERCISE G-25

10                      ?                      42,000                      -6,500                      0

|   |       |    |     |    |
|---|-------|----|-----|----|
| N | I/YR. | PV | PMT | FV |
|   | 8.85% |    |     |    |

LO 3 BT: AP Difficulty: Easy TOT: 5 min. AACSB: Analytic AICPA FC: Reporting

### BRIEF EXERCISE G-26

40                      ?                      178,000\*                      -8,400                      0

|   |              |    |     |    |
|---|--------------|----|-----|----|
| N | I/YR.        | PV | PMT | FV |
|   | 3.55%        |    |     |    |
|   | (semiannual) |    |     |    |

\*\$198,000 – \$20,000

LO 3 BT: AP Difficulty: Easy TOT: 5 min. AACSB: Analytic AICPA FC: Reporting

## BRIEF EXERCISE G-27

(a)

|         |              |              |               |                |               |
|---------|--------------|--------------|---------------|----------------|---------------|
| Inputs: | 7            | 7.35         | ?             | 16,000         | 0             |
|         | <div>N</div> | <div>I</div> | <div>PV</div> | <div>PMT</div> | <div>FV</div> |

Answer: -85,186.34

(b)

|         |              |              |               |                |               |
|---------|--------------|--------------|---------------|----------------|---------------|
| Inputs: | 10           | 10.65        | ?             | 16,000**       | 200,000*      |
|         | <div>N</div> | <div>I</div> | <div>PV</div> | <div>PMT</div> | <div>FV</div> |

Answer: -168,323.64

\*200 X \$1,000

\*\*\$200,000 X .08

LO 3 BT: AP Difficulty: Easy TOT: 5 min. AACSB: Analytic AICPA FC: Reporting

## BRIEF EXERCISE G-28

(a)

**Note—set payments at 12 per year.**

|         |    |     |        |     |    |
|---------|----|-----|--------|-----|----|
| Inputs: | 96 | 7.8 | 42,000 | ?   | 0  |
|         | N  | I   | PV     | PMT | FV |

**Answer:** **-589.48**

(b)

**Note—set payments to 1 per year.**

|         |   |      |       |     |    |
|---------|---|------|-------|-----|----|
| Inputs: | 5 | 7.25 | 8,000 | ?   | 0  |
|         | N | I    | PV    | PMT | FV |

**Answer:** **-1,964.20**

LO 3 BT: AP Difficulty: Easy TOT: 5 min. AACSB: Analytic AICPA FC: Reporting

# CHAPTER 1

## Introduction to Financial Statements

### Learning Objectives

1. Identify the forms of business organization and the uses of accounting information.
2. Explain the three principal types of business activity.
3. Describe the four financial statements, and how they are prepared.

### Summary of Questions by Learning Objectives and Bloom's Taxonomy

| Item                    | LO      | BT | Item | LO | BT | Item | LO | BT | Item | LO | BT | Item | LO | BT |
|-------------------------|---------|----|------|----|----|------|----|----|------|----|----|------|----|----|
| <b>Questions</b>        |         |    |      |    |    |      |    |    |      |    |    |      |    |    |
| 1.                      | 1       | K  | 6.   | 1  | C  | 10.  | 3  | C  | 14.  | 3  | K  | 18.  | 3  | K  |
| 2.                      | 1       | K  | 7.   | 2  | C  | 11.  | 3  | K  | 15.  | 3  | K  | 19.  | 3  | C  |
| 3.                      | 1       | K  | 8.   | 3  | K  | 12.  | 3  | C  | 16.  | 3  | AP | 20.  | 3  | K  |
| 4.                      | 1       | C  | 9.   | 3  | C  | 13.  | 3  | AP | 17.  | 3  | C  | 21.  | 3  | C  |
| 5.                      | 1       | C  |      |    |    |      |    |    |      |    |    |      |    |    |
| <b>Brief Exercises</b>  |         |    |      |    |    |      |    |    |      |    |    |      |    |    |
| 1.                      | 1       | K  | 4.   | 3  | C  | 6.   | 3  | K  | 8.   | 3  | AP | 10.  | 3  | K  |
| 2.                      | 1       | K  | 5.   | 3  | AP | 7.   | 3  | K  | 9.   | 3  | AP | 11.  | 3  | K  |
| 3.                      | 2       | K  |      |    |    |      |    |    |      |    |    |      |    |    |
| <b>Do It! Exercises</b> |         |    |      |    |    |      |    |    |      |    |    |      |    |    |
| 1.                      | 1       | C  | 2.   | 2  | K  | 3a.  | 3  | AP | 3b.  | 3  | K  |      |    |    |
| <b>Exercises</b>        |         |    |      |    |    |      |    |    |      |    |    |      |    |    |
| 1.                      | 1, 2, 3 | K  | 5.   | 3  | AP | 9.   | 3  | AN | 12.  | 3  | AP | 15.  | 3  | AP |
| 2.                      | 2       | C  | 6.   | 3  | AP | 10.  | 3  | AP | 13.  | 3  | AP | 16.  | 3  | AN |
| 3.                      | 2, 3    | C  | 7.   | 3  | AP | 11.  | 3  | AP | 14.  | 3  | AP | 17.  | 3  | K  |
| 4.                      | 3       | AP | 8.   | 3  | C  |      |    |    |      |    |    |      |    |    |
| <b>Problems: Set A</b>  |         |    |      |    |    |      |    |    |      |    |    |      |    |    |
| 1.                      | 1       | C  | 2.   | 3  | C  | 3.   | 3  | AP | 4.   | 3  | AP | 5.   | 3  | AN |

## ASSIGNMENT CHARACTERISTICS TABLE

| <b>Problem<br/>Number</b> | <b>Description</b>                                                                            | <b>Difficulty<br/>Level</b> | <b>Time<br/>Allotted (min.)</b> |
|---------------------------|-----------------------------------------------------------------------------------------------|-----------------------------|---------------------------------|
| 1A                        | Determine forms of business organization.                                                     | Simple                      | 15–20                           |
| 2A                        | Identify users and uses of financial statements.                                              | Simple                      | 15–20                           |
| 3A                        | Prepare an income statement, retained earnings statement, and balance sheet; discuss results. | Moderate                    | 40–50                           |
| 4A                        | Determine items included in a statement of cash flows, prepare the statement, and comment.    | Moderate                    | 30–40                           |
| 5A                        | Comment on proper accounting treatment and prepare a corrected balance sheet.                 | Moderate                    | 40–50                           |

# ANSWERS TO QUESTIONS

1. The three basic forms of business organizations are (1) sole proprietorship, (2) partnership, and (3) corporation.

LO 1 BT: K Diff: E TOT: 1 min. AACSB: None AICPA BB: Legal/Regulatory Perspective

2. Advantages of a corporation are limited liability (stockholders not being personally liable for corporate debts), easy transferability of ownership, and ease of raising funds. Disadvantages of a corporation are increased taxation and government regulations.

LO 1 BT: K Diff: E TOT: 1 min. AACSB: None AICPA BB: Legal/Regulatory Perspective

3. Proprietorships and partnerships receive favorable tax treatment compared to corporations and are easier to form than corporations. They are also owner controlled. Disadvantages of proprietorships and partnerships are unlimited liability (proprietors/partners are personally liable for all debts) and difficulty in obtaining financing compared to corporations.

LO 1 BT: K Diff: E TOT: 1 min. AACSB: None AICPA BB: Legal/Regulatory Perspective

4. Yes. A person cannot earn a living, spend money, buy on credit, make an investment, or pay taxes without receiving, using, or dispensing financial information. Accounting provides financial information to interested users through the preparation and distribution of financial statements.

LO 1 BT: K Diff: E TOT: 1 min. AACSB: None AICPA FC: Reporting

5. Internal users are managers who plan, organize, and run a business. To assist management, accounting provides timely internal reports. Examples include financial comparisons of operating alternatives, projections of income from new sales campaigns, forecasts of cash needs for the next year, and financial statements.

LO 1 BT: K Diff: E TOT: 1 min. AACSB: None AICPA FC: Reporting

6. External users are those outside the business who have either a present or potential direct financial interest (investors and creditors) or an indirect financial interest (taxing authorities, regulatory agencies, labor unions, customers, and economic planners).

LO 1 BT: K Diff: E TOT: 1 min. AACSB: None AICPA FC: Reporting

7. The three types of business activities are financing activities, investing activities, and operating activities. Financing activities include borrowing money and selling shares of stock. Investing activities include the purchase and sale of property, plant, and equipment. Operating activities include selling goods, performing services, and purchasing inventory.

LO 2 BT: K Diff: M TOT: 2 min. AACSB: None AICPA FC: Reporting

8. (a) Income statement. (d) Balance sheet.  
(b) Balance sheet. (e) Balance sheet.  
(c) Income statement. (f) Balance sheet.

LO 3 BT: K Diff: M TOT: 2 min. AACSB: None AICPA FC: Reporting

- 9.** When a company pays dividends, it reduces the amount of assets available to pay creditors. Therefore, banks and other creditors monitor dividend payments to ensure they do not put a company's ability to make debt payments at risk.

LO 3 BT: AN Diff: M TOT: 2 min. AACSB: Reflective Thinking AICPA BB: Critical Thinking

- 10.** Yes. Net income does appear on the income statement—it is the result of subtracting expenses from revenues. In addition, net income appears in the retained earnings statement—it is shown as an addition to the beginning-of-period retained earnings. Indirectly, the net income of a company is also included in the balance sheet. It is included in the retained earnings account which appears in the stockholders' equity section of the balance sheet.

LO 3 BT: C Diff: E TOT: 1 min. AACSB: None AICPA FC: Reporting

- 11.** The primary purpose of the statement of cash flows is to provide financial information about the cash receipts and cash payments of a business for a specific period of time.

LO 3 BT: K Diff: E TOT: 1 min. AACSB: None AICPA FC: Reporting

- 12.** The three categories of the statement of cash flows are operating activities, investing activities, and financing activities. The categories were chosen because they represent the three principal types of business activities.

LO 3 BT: K Diff: E TOT: 1 min. AACSB: None AICPA FC: Reporting

- 13.** Retained earnings is the net income retained in a corporation. Retained earnings is increased by net income and is decreased by dividends and a net loss.

LO 3 BT: C Diff: E TOT: 1 min. AACSB: None AICPA FC: Reporting

- 14.** The basic accounting equation is  $\text{Assets} = \text{Liabilities} + \text{Stockholders' Equity}$ .

LO 3 BT: K Diff: E TOT: 1 min. AACSB: None AICPA FC: Reporting

- 15.** (a) Assets are resources owned by a business. Liabilities are amounts owed to creditors. Put more simply, liabilities are existing debts and obligations. Stockholders' equity is the ownership claim on net assets.
- (b) The items that affect stockholders' equity are common stock, retained earnings, dividends, revenues, and expenses.

LO 3 BT: K Diff: E TOT: 2 min. AACSB: None AICPA FC: Reporting

- 16.** The liabilities are (b) Accounts payable and (g) Salaries and wages payable.

LO 3 BT: C Diff: E TOT: 1 min. AACSB: None AICPA FC: Reporting

17. (a) Net income from the income statement is reported as an increase to retained earnings on the retained earnings statement.
- (b) The ending amount on the retained earnings statement is reported as the retained earnings amount on the balance sheet.
- (c) The ending amount on the statement of cash flows is reported as the cash amount on the balance sheet.

LO 3 BT: C Diff: M TOT: 2 min. AACSB: None AICPA FC: Reporting

18. The purpose of the management discussion and analysis section is to provide management's views on its ability to pay short-term obligations, its ability to fund operations and expansion, and its results of operations. The MD&A section is a required part of the annual report.

LO 3 BT: K Diff: E TOT: 1 min. AACSB: None AICPA FC: Reporting

19. An unqualified opinion shows that, in the opinion of an independent auditor, the financial statements have been presented fairly, in conformity with generally accepted accounting principles. This gives investors more confidence that they can rely on the figures reported in the financial statements.

LO 3 BT: C Diff: E TOT: 2 min. AACSB: None AICPA FC: Reporting

20. Information included in the notes to the financial statements clarifies information presented in the financial statements and includes descriptions of accounting policies, explanations of uncertainties and contingencies, and statistics and details too voluminous to be reported in the financial statements.

LO 3 BT: K Diff: E TOT: 1 min. AACSB: None AICPA FC: Reporting

21. Using dollar amounts, Apple's accounting equation is:

$$\begin{array}{rclcl} \text{Assets} & & \text{Liabilities} & & \text{Stockholders' Equity} \\ \$231,839,000 & = & \$120,292,000 & + & \$111,547,000 \end{array}$$

LO 3 BT: AP Diff: E TOT: 2 min. AACSB: Analytic AICPA FC: Reporting

# SOLUTIONS TO BRIEF EXERCISES

## BRIEF EXERCISE 1-1

- (a)   P   Shared control, tax advantages, increased skills and resources.
- (b)   SP   Simple to set up and maintains control with owner.
- (c)   C   Easier to transfer ownership and raise funds, no personal liability.

LO 1 BT: K Difficulty: Easy TOT: 2.0 min. AACSB: None AICPA BB: Legal

## BRIEF EXERCISE 1-2

- (a)   4   Investors in common stock
- (b)   3   Marketing managers
- (c)   2   Creditors
- (d)   5   Chief Financial Officer
- (e)   1   Internal Revenue Service

LO 1 BT: K Difficulty: Easy TOT: 2.0 min. AACSB: None AICPA FC: Measurement

## BRIEF EXERCISE 1-3

- O   (a) Cash received from customers.
- F   (b) Cash paid to stockholders (dividends).
- F   (c) Cash received from issuing new common stock.
- O   (d) Cash paid to suppliers.
- I   (e) Cash paid to purchase a new office building.

LO 2 BT: K Difficulty: Easy TOT: 2.0 min. AACSB: None AICPA FC: Measurement & Reporting

## BRIEF EXERCISE 1-4

|            |                                   |
|------------|-----------------------------------|
| <u>E</u>   | (a) Advertising expense           |
| <u>R</u>   | (b) Service revenue               |
| <u>E</u>   | (c) Insurance expense             |
| <u>E</u>   | (d) Salaries and wages expense    |
| <u>D</u>   | (e) Dividends                     |
| <u>R</u>   | (f) Rent revenue                  |
| <u>E</u>   | (g) Utilities expense             |
| <u>NSE</u> | (h) Cash purchase of equipment    |
| <u>C</u>   | (i) Issued common stock for cash. |

LO 3 BT: C Difficulty: Easy TOT: 3.0 min. AACSB: None AICPA FC: Measurement & Reporting

## BRIEF EXERCISE 1-5

### KAROL COMPANY Balance Sheet December 31, 2017

| Assets                                           |                 |
|--------------------------------------------------|-----------------|
| Cash.....                                        | \$22,000        |
| Accounts receivable.....                         | <u>71,000</u>   |
| Total assets.....                                | <u>\$93,000</u> |
| Liabilities and Stockholders' Equity             |                 |
| Liabilities                                      |                 |
| Accounts payable .....                           | \$65,000        |
| Stockholders' equity                             |                 |
| Common stock.....                                | \$18,000        |
| Retained earnings.....                           | <u>10,000</u>   |
| Total liabilities and stockholders' equity ..... | <u>28,000</u>   |
|                                                  | <u>\$93,000</u> |

LO 3 BT: AP Difficulty: Medium TOT: 4.0 min. AACSB: Analytic AICPA FC: Reporting

## BRIEF EXERCISE 1-6

|           |     |                     |
|-----------|-----|---------------------|
| <u>IS</u> | (a) | Income tax expense  |
| <u>BS</u> | (b) | Inventory           |
| <u>BS</u> | (c) | Accounts payable    |
| <u>BS</u> | (d) | Retained earnings   |
| <u>BS</u> | (e) | Equipment           |
| <u>IS</u> | (f) | Sales revenue       |
| <u>IS</u> | (g) | Cost of goods sold  |
| <u>BS</u> | (h) | Common stock        |
| <u>BS</u> | (i) | Accounts Receivable |
| <u>IS</u> | (j) | Interest expense    |

LO 3 BT: K Difficulty: Easy TOT: 3.0 min. AACSB: None AICPA FC: Reporting

## BRIEF EXERCISE 1-7

|            |     |                                                         |
|------------|-----|---------------------------------------------------------|
| <u>IS</u>  | (a) | Revenue during the period.                              |
| <u>BS</u>  | (b) | Supplies on hand at the end of the year.                |
| <u>SCF</u> | (c) | Cash received from issuing new bonds during the period. |
| <u>BS</u>  | (d) | Total debts outstanding at the end of the period.       |

LO 3 BT: K Difficulty: Easy TOT: 2.0 min. AACSB: None AICPA FC: Reporting

## BRIEF EXERCISE 1-8

- (a)  $\$90,000 + \$230,000 = \$320,000$  (Total assets)  
(Liabilities + Stockholder's equity = Assets)
- (b)  $\$170,000 - \$80,000 = \$90,000$  (Total liabilities)  
(Assets – Stockholder's equity = Liabilities)
- (c)  $\$800,000 - 0.25(\$800,000) = \$600,000$  (Stockholders' equity)  
(Assets –  $(1/4 \times \text{Assets})$  = Stockholder's equity)

LO 3 BT: AP Difficulty: Medium TOT: 4.0 min. AACSB: Analytic AICPA: FC: Measurement

## BRIEF EXERCISE 1-9

- (a)  $(\$800,000 + \$150,000) - (\$500,000 - \$80,000) = \$530,000$   
(Stockholders' equity)  
[(Assets  $\pm$  Change in assets) - (Liabilities  $\pm$  Change in liabilities) = Stockholders' equity]
- (b)  $(\$500,000 + \$100,000) + (\$800,000 - \$500,000 - \$70,000) = \$830,000$   
(Assets)  
[(Liabilities  $\pm$  Change in liabilities) + (Stockholders' equity  $\pm$  Change in stockholders' equity) = Assets]
- (c)  $(\$800,000 - \$80,000) - (\$800,000 - \$500,000 + \$110,000) = \$310,000$   
(Liabilities)  
[(Assets  $\pm$  Change in assets) - (Stockholders' equity  $\pm$  Change in stockholders' equity) = Liabilities]

LO 3 BT: AP Difficulty: Medium TOT: 5.0 min. AACSB: Analytic AICPA FC: Measurement

## BRIEF EXERCISE 1-10

|              |                                |
|--------------|--------------------------------|
| <u>  A  </u> | (a) Accounts receivable        |
| <u>  L  </u> | (b) Salaries and wages payable |
| <u>  A  </u> | (c) Equipment                  |
| <u>  A  </u> | (d) Supplies                   |
| <u> SE </u>  | (e) Common stock               |
| <u>  L  </u> | (f) Notes payable              |

LO 3 BT: K Difficulty: Easy TOT: 3.0 min. AACSB: None AICPA FC: Reporting

## BRIEF EXERCISE 1-11

- (d) All of these are required.

LO 3 BT: K Difficulty: Easy TOT: 2.0 min. AACSB: None AICPA FC: Reporting

## SOLUTIONS TO DO IT! EXERCISES

### DO IT! 1-1

- (a) Easier to transfer ownership: corporation
- (b) Easier to raise funds: corporation
- (c) More owner control: sole proprietorship
- (d) Tax advantages: sole proprietorship and partnership
- (e) No personal legal liability: corporation

LO 1 BT: C Difficulty: Easy TOT: 2.0 min. AACSB: None AICPA BB: Legal

### DO IT! 1-2

- (a) Issuance of ownership shares is classified as common stock.
- (b) Land purchased is classified as an asset.
- (c) Amounts owed to suppliers are classified as liabilities.
- (d) Bonds payable are classified as liabilities.
- (e) Amount earned from selling a product is classified as revenue.
- (f) Cost of advertising is classified as expense.

LO 2 BT: K Difficulty: Easy TOT: 2.0 min. AACSB: None AICPA FC: Reporting

### DO IT! 1-3a

**GRAY CORPORATION**  
**Income Statement**  
**For the Year Ended December 31, 2017**

|                           |                 |  |                        |
|---------------------------|-----------------|--|------------------------|
| <b>Revenues</b>           |                 |  |                        |
| Service revenue .....     |                 |  | <b>\$25,000</b>        |
| <b>Expenses</b>           |                 |  |                        |
| Rent expense .....        | <b>\$10,000</b> |  |                        |
| Advertising expense ..... | <b>4,000</b>    |  |                        |
| Supplies expense .....    | <b>1,700</b>    |  |                        |
| Total expenses .....      |                 |  | <b><u>15,700</u></b>   |
| Net income.....           |                 |  | <b><u>\$ 9,300</u></b> |

[Revenues – Expenses = Net income or (loss)]

DO IT! 1-3a (Continued)

**GRAY CORPORATION**  
**Retained Earnings Statement**  
**For the Year Ended December 31, 2017**

---

|                                      |                       |
|--------------------------------------|-----------------------|
| Retained earnings, January 1 .....   | \$ -0-                |
| Add: Net income .....                | <u>9,300</u>          |
|                                      | 9,300                 |
| Less: Dividends .....                | <u>2,500</u>          |
| Retained earnings, December 31 ..... | <u><u>\$6,800</u></u> |

(Beginning retained earnings ± Changes in retained earnings = Ending retained earnings)

**GRAY CORPORATION**  
**Balance Sheet**  
**December 31, 2017**

---

| <u><b>Assets</b></u>      |                        |
|---------------------------|------------------------|
| Cash .....                | \$ 3,100               |
| Accounts receivable ..... | 2,000                  |
| Supplies .....            | 1,900                  |
| Equipment .....           | <u>26,800</u>          |
| Total assets .....        | <u><u>\$33,800</u></u> |

**Liabilities and Stockholders' Equity**

|                                                  |              |                        |
|--------------------------------------------------|--------------|------------------------|
| <b>Liabilities</b>                               |              |                        |
| Notes payable .....                              | \$ 7,000     |                        |
| Account payable .....                            | <u>5,000</u> |                        |
| Total liabilities .....                          |              | \$12,000               |
| <b>Stockholder's equity</b>                      |              |                        |
| Common stock .....                               | 15,000       |                        |
| Retained earnings .....                          | <u>6,800</u> |                        |
| Total stockholders' equity .....                 |              | <u><u>21,800</u></u>   |
| Total liabilities and stockholder's equity ..... |              | <u><u>\$33,800</u></u> |

(Assets = Liabilities + Stockholders' equity)

LO 3 BT: AP Difficulty: Hard TOT: 10 min. AACSB: Analytic AICPA FC: Reporting

## **DO IT! 1-3b**

- (a) Description of ability to pay near-term obligations: MD&A**
- (b) Unqualified opinion: auditor's report**
- (c) Details concerning liabilities, too voluminous to be included in the statements: notes**
- (d) Description of favorable and unfavorable trends: MD&A**
- (e) Certified Public Accountant (CPA): auditor's report**
- (f) Descriptions of significant accounting policies: notes**

**LO 3 BT: K Difficulty: Easy TOT: 3.0 min. AACSB: None AICPA FC: Reporting**

# SOLUTIONS TO EXERCISES

## EXERCISE 1-1

- (a) 8. Auditor's opinion
- (b) 1. Corporation
- (c) 6. Common stock
- (d) 7. Accounts payable
- (e) 3. Accounts receivable
- (f) 2. Creditor
- (g) 5. Stockholder
- (h) 4. Partnership

LO 1-3 BT: K Difficulty: Easy TOT: 2.0 min. AACSB: None AICPA FC: Measurement & Reporting

## EXERCISE 1-2

- (a) Answers will vary.

|                                  | Financing                            | Investing                      | Operating                              |
|----------------------------------|--------------------------------------|--------------------------------|----------------------------------------|
| Abitibi Consolidated Inc.        | Sale of stock                        | Purchase long-term investments | Sale of newsprint                      |
| Cal State—Northridge Std't Union | Borrow money from a bank             | Purchase office equipment      | Payment of wages and benefits          |
| Oracle Corporation               | Sale of bonds                        | Purchase other companies       | Payment of research expenses           |
| Sportsco Investments             | Payment of dividends to stockholders | Purchase hockey equipment      | Payment for rink rentals               |
| Grant Thornton LLP               | Distribute earnings to partners      | Purchase computers             | Bill clients for professional services |
| Southwest Airlines               | Sale of stock                        | Purchase airplanes             | Payment for jet fuel                   |

## EXERCISE 1-2 (Continued)

### (b) Financing

Sale of stock is common to all corporations. Borrowing from a bank is common to all businesses. Payment of dividends is common to all corporations. Sale of bonds is common to large corporations.

### Investing

Purchase and sale of property, plant, and equipment would be common to all businesses—the types of assets would vary according to the type of business and some types of businesses require a larger investment in long-lived assets. A new business or expanding business would be more apt to acquire property, plant, and equipment while a mature or declining business would be more apt to sell it.

### Operating

The general activities identified would be common to most businesses, although the service or product would differ.

LO 2 BT: C Difficulty: Easy TOT: 3.0 min. AACSB: None AICPA FC: Measurement & Reporting

## EXERCISE 1-3

|                            |   |
|----------------------------|---|
| Accounts payable           | L |
| Accounts receivable        | A |
| Equipment                  | A |
| Sales revenue              | R |
| Service revenue            | R |
| Inventory                  | A |
| Mortgage payable           | L |
| Supplies expense           | E |
| Rent expense               | E |
| Salaries and wages expense | E |

LO 3 BT: C Difficulty: Easy TOT: 3.0 min AACSB: None AICPA FC: Measurement & Reporting

## EXERCISE 1-4

**BENSER CO.**  
**Income Statement**  
**For the Year Ended December 31, 2017**

---

|                                  |                     |                        |
|----------------------------------|---------------------|------------------------|
| <b>Revenues</b>                  |                     |                        |
| Service revenue .....            |                     | <b>\$58,000</b>        |
| <b>Expenses</b>                  |                     |                        |
| Salaries and wages expense ..... | <b>\$30,000</b>     |                        |
| Rent expense .....               | <b>10,400</b>       |                        |
| Utilities expense .....          | <b>2,400</b>        |                        |
| Advertising expense .....        | <b><u>1,800</u></b> |                        |
| Total expenses .....             |                     | <b><u>44,600</u></b>   |
| <b>Net income .....</b>          |                     | <b><u>\$13,400</u></b> |

**BENSER CO.**  
**Retained Earnings Statement**  
**For the Year Ended December 31, 2017**

---

|                                             |                        |
|---------------------------------------------|------------------------|
| <b>Retained earnings, January 1 .....</b>   | <b>\$67,000</b>        |
| <b>Add: Net income .....</b>                | <b><u>13,400</u></b>   |
|                                             | <b>80,400</b>          |
| <b>Less: Dividends .....</b>                | <b><u>6,000</u></b>    |
| <b>Retained earnings, December 31 .....</b> | <b><u>\$74,400</u></b> |

[Revenues – Expenses = Net income or (loss)]

(Beginning retained earnings ± Changes in retained earnings = Ending retained earnings)

LO 3 BT: AP Difficulty: Medium TOT: 6.0 min. AACSB: Analytic AICPA FC: Reporting

## EXERCISE 1-5

(a)

**MERCK AND CO.**  
**Income Statement**  
**For the Year Ended December 31, 2017**  
**(in millions)**

|                                           |                   |                          |
|-------------------------------------------|-------------------|--------------------------|
| <b>Revenues</b>                           |                   |                          |
| Sales revenue .....                       |                   | <b>\$38,576.0</b>        |
| <b>Expenses</b>                           |                   |                          |
| Cost of goods sold.....                   | <b>\$ 9,018.9</b> |                          |
| Selling and administrative expenses ..... | <b>8,543.2</b>    |                          |
| Research and development expense .....    | <b>5,845.0</b>    |                          |
| Income tax expense .....                  | <b>2,267.6</b>    |                          |
| Total expenses.....                       |                   | <b><u>25,674.7</u></b>   |
| Net income .....                          |                   | <b><u>\$12,901.3</u></b> |

**MERCK AND CO.**  
**Retained Earnings Statement**  
**For the Year Ended December 31, 2017**  
**(in millions)**

|                                      |                          |
|--------------------------------------|--------------------------|
| Retained earnings, January 1 .....   | <b>\$43,698.8</b>        |
| Add: Net income .....                | <b><u>12,901.3</u></b>   |
|                                      | <b>56,600.1</b>          |
| Less: Dividends.....                 | <b><u>3,597.7</u></b>    |
| Retained earnings, December 31 ..... | <b><u>\$53,002.4</u></b> |

[Revenues – Expenses = Net income or (loss)]

(Beginning retained earnings ± Changes in retained earnings = Ending retained earnings)

- (b) The short-term implication would be a decrease in expenses of \$2,922.5 (\$5,845 X 50%) resulting in a corresponding increase in income (ignoring income taxes). If all other revenues and expenses remain unchanged, decreasing research and development expenses would produce 22.7% more net income (\$2,922.5 ÷ \$12,901.3).

## EXERCISE 1-5 (Continued)

The long-term implications would be more difficult to quantify but it is safe to predict that a reduction in research and development expenses would probably result in lower sales revenues in the future. Pharmaceutical companies are usually able to charge higher prices for newly developed products while lower cost generic versions usually replace older products. Decreasing research and development activities will probably mean fewer new products.

The stock market's initial reaction might be positive since Merck's net income would increase significantly. Such a reaction would probably be very short-lived as more knowledgeable investors reviewed Merck's financial statements and discovered the cause of the increase.

LO 3 BT: AP Difficulty: Hard TOT: 8.0 min. AACSB: Analytic AICPA FC: Reporting

## EXERCISE 1-6

**ZHENG INC.**  
**Retained Earnings Statement**  
**For the Year Ended December 31, 2017**

|                                      |                         |
|--------------------------------------|-------------------------|
| Retained earnings, January 1.....    | \$130,000               |
| Add: Net income.....                 | <u>225,000*</u>         |
|                                      | 355,000                 |
| Less: Dividends.....                 | <u>65,000</u>           |
| Retained earnings, December 31 ..... | <u><u>\$290,000</u></u> |
|                                      |                         |
| *Service revenue .....               | \$400,000               |
| Total expenses .....                 | <u>175,000</u>          |
| Net income.....                      | <u><u>\$225,000</u></u> |

(Beginning retained earnings ± Changes in retained earnings = Ending retained earnings)

LO 3 BT: AP Difficulty: Medium TOT: 4.0 min. AACSB: Analytic AICPA FC: Reporting

## EXERCISE 1-7

- (a) Lee Corporation is distributing nearly all of this year's net income as dividends. This suggests that Lee is not pursuing rapid growth. Companies that have a lot of opportunities for growth pay low dividends.
- (b) Steele Corporation is not generating sufficient cash provided by operating activities to fund its investing activities. Instead it generates additional cash through financing activities. This is common for companies in their early years of existence.

LO 3 BT: AP Difficulty: Medium TOT: 4.0 min. AACSB: Analytic AICPA FC: Reporting

## EXERCISE 1-8

|     |           |                            |
|-----|-----------|----------------------------|
| (a) | <u>A</u>  | Cash                       |
|     | <u>SE</u> | Retained earnings          |
|     | <u>E</u>  | Cost of goods sold         |
|     | <u>E</u>  | Salaries and wages expense |
|     | <u>A</u>  | Prepaid insurance          |
|     | <u>A</u>  | Inventory                  |
|     | <u>A</u>  | Accounts receivable        |
|     | <u>R</u>  | Sales revenue              |
|     | <u>L</u>  | Notes payable              |
|     | <u>L</u>  | Accounts payable           |
|     | <u>R</u>  | Service revenue            |
|     | <u>E</u>  | Interest expense           |

## EXERCISE 1-8 (Continued)

(b)

**LONYEAR INC.**  
**Income Statement**  
**For the Year Ended December 31, 2017**

|                                  |              |                  |
|----------------------------------|--------------|------------------|
| <b>Revenues</b>                  |              |                  |
| Sales revenue.....               | \$584,951    |                  |
| Service revenue .....            | <u>4,806</u> |                  |
| Total revenues.....              |              | \$589,757        |
| <b>Expenses</b>                  |              |                  |
| Cost of goods sold .....         | 438,458      |                  |
| Salaries and wages expense ..... | 115,131      |                  |
| Interest expense .....           | <u>1,882</u> |                  |
| Total expenses .....             |              | <u>555,471</u>   |
| Net income .....                 |              | <u>\$ 34,286</u> |

[Revenues – Expenses = Net income or (loss)]

LO 3 BT: C Difficulty: Medium TOT: 5.0 min. AACSB: Analytic AICPA FC: Measurement & Reporting

## EXERCISE 1-9

First note that the retained earnings statement shows that (b) equals \$27,000.

Accounts payable + Common stock + Retained earnings = Total liabilities and stockholders' equity

$$\$5,000 + a + \$27,000 = \$62,000$$

$$a + \$32,000 = \$62,000$$

$$a = \underline{\underline{\$30,000}}$$

Beginning retained earnings + Net income – Dividends = Ending retained earnings

$$\$12,000 + e - \$5,000 = \$27,000$$

$$\$7,000 + e = \$27,000$$

$$e = \underline{\underline{\$20,000}}$$

## EXERCISE 1-9 (Continued)

From above, we know that net income (d) equals \$20,000.

Revenue – Cost of goods sold – Salaries and wages expense = Net income

$$\$85,000 - c - \$10,000 = \$20,000$$

$$\$75,000 - c = \$20,000$$

$$c = \underline{\underline{\$55,000}}$$

LO 3 BT: AN Difficulty: Hard TOT: 7.0 min. AACSB: Analytic AICPA FC: Reporting

## EXERCISE 1-10

|     |                      |               |                  |
|-----|----------------------|---------------|------------------|
| (a) | Service revenue..... | \$132,000     |                  |
|     | Sales revenue .....  | <u>25,000</u> |                  |
|     | Total revenue .....  |               | \$157,000        |
|     | Expenses .....       |               | <u>126,000</u>   |
|     | Net income .....     |               | <u>\$ 31,000</u> |

[Revenues – Expenses = Net income or (loss)]

(b)

**OTAY LAKES PARK**  
**Retained Earnings Statement**  
**For the Year Ended December 31, 2017**

|                                      |                 |
|--------------------------------------|-----------------|
| Retained earnings, January 1 .....   | \$ 5,000        |
| Add: Net income .....                | <u>31,000</u>   |
|                                      | 36,000          |
| Less: Dividends.....                 | <u>9,000</u>    |
| Retained earnings, December 31 ..... | <u>\$27,000</u> |

(Beginning retained earnings ± Changes in retained earnings = Ending retained earnings)

**EXERCISE 1-10 (Continued)**

**OTAY LAKES PARK  
Balance Sheet  
December 31, 2017**

| <b>Assets</b>                                    |               |                  |
|--------------------------------------------------|---------------|------------------|
| Cash .....                                       |               | \$ 8,500         |
| Supplies .....                                   |               | 5,500            |
| Equipment .....                                  |               | <u>114,000</u>   |
| Total assets .....                               |               | <u>\$128,000</u> |
| <b>Liabilities and Stockholders' Equity</b>      |               |                  |
| <b>Liabilities</b>                               |               |                  |
| Notes payable .....                              | \$50,000      |                  |
| Accounts payable .....                           | <u>11,000</u> |                  |
| Total liabilities .....                          |               | \$ 61,000        |
| <b>Stockholders' equity</b>                      |               |                  |
| Common stock .....                               | 40,000        |                  |
| Retained earnings .....                          | <u>27,000</u> | <u>67,000</u>    |
| Total liabilities and stockholders' equity ..... |               | <u>\$128,000</u> |

(Assets = Liabilities + Stockholders' equity)

- (c) The income statement indicates that revenues from the general store were only about 16% ( $\$25,000 \div \$157,000$ ) of total revenue which tends to support Walt's opinion. In order to decide if the store is "more trouble than it is worth," I would need to know the amount of expenses attributable to the general store. The income statement reports all expenses in a single category rather than separating them into camping and general store expenses to correspond with revenues. A break down into two categories would help me decide if the general store is generating a profit or loss.

Even if the general store is operating at a loss, I might recommend retaining it if campers indicated that the convenience of having a general store on site was an important amenity in selecting a camp ground.

LO 3 BT: AP Difficulty: Hard TOT: 10 min. AACSB: Analytic AICPA FC: Reporting

## EXERCISE 1-11

|     |           |                                     |
|-----|-----------|-------------------------------------|
| (a) | <u>SE</u> | Retained earnings                   |
|     | <u>E</u>  | Cost of goods sold                  |
|     | <u>E</u>  | Selling and administrative expenses |
|     | <u>A</u>  | Cash                                |
|     | <u>L</u>  | Notes payable                       |
|     | <u>E</u>  | Interest expense                    |
|     | <u>L</u>  | Bonds payable                       |
|     | <u>A</u>  | Inventory                           |
|     | <u>R</u>  | Sales revenue                       |
|     | <u>L</u>  | Accounts payable                    |
|     | <u>SE</u> | Common stock                        |
|     | <u>E</u>  | Income tax expense                  |

(b)

**KELLOGG COMPANY**  
**Income Statement**  
**For the Year Ended December 31, 2017**  
**(in millions)**

|                                          |                |                        |
|------------------------------------------|----------------|------------------------|
| <hr/>                                    |                |                        |
| <b>Revenues</b>                          |                |                        |
| Sales revenue .....                      |                | <b>\$12,575</b>        |
| <b>Expenses</b>                          |                |                        |
| Cost of goods sold .....                 | <b>\$7,184</b> |                        |
| Selling and administrative expenses..... | <b>3,390</b>   |                        |
| Income tax expense .....                 | <b>498</b>     |                        |
| Interest expense .....                   | <b>295</b>     |                        |
| Total expenses .....                     |                | <b><u>11,367</u></b>   |
| <b>Net income .....</b>                  |                | <b><u>\$ 1,208</u></b> |

[Revenues – Expenses = Net income or (loss)]

LO 3 BT: AP Difficulty: Medium TOT: 6.0 min. AACSB: Analytic AICPA FC: Reporting

## EXERCISE 1-12

(a)

**WILLIAMS CORPORATION**  
**Statement of Cash Flows**  
**For the Year Ended December 31, 2017**

---

|                                                |                 |                         |
|------------------------------------------------|-----------------|-------------------------|
| <b>Cash flows from operating activities</b>    |                 |                         |
| Cash received from customers.....              | \$ 50,000       |                         |
| Cash paid to suppliers.....                    | <u>(16,000)</u> |                         |
| Net cash provided by operating activities .... |                 | \$ 34,000               |
| <b>Cash flows from investing activities</b>    |                 |                         |
| Cash paid for new equipment .....              | <u>(28,000)</u> |                         |
| Net cash used by investing activities.....     |                 | (28,000)                |
| <b>Cash flows from financing activities</b>    |                 |                         |
| Cash received from lenders .....               | 20,000          |                         |
| Cash dividends paid .....                      | <u>(8,000)</u>  |                         |
| Net cash provided by financing activities..... |                 | <u>12,000</u>           |
| Net increase in cash .....                     |                 | 18,000                  |
| Cash at beginning of period.....               |                 | <u>12,000</u>           |
| Cash at end of period .....                    |                 | <u><u>\$ 30,000</u></u> |

(Cash flows from operating, investing, and financing activities = Net change in cash)

- (b) As a creditor, I would feel reasonably confident that Williams has the ability to repay its lenders. During 2017, Williams generated \$34,000 of cash from its operating activities. This amount more than covered its expenditures for new equipment but not both equipment purchases and dividends.

LO 3 BT: AP Difficulty: Medium TOT: 6.0 min. AACSB: Analytic AICPA FC: Reporting

**EXERCISE 1-13**

(a) **SOUTHWEST AIRLINES**  
**Statement of Cash Flows**  
**For the Year Ended December 31, 2017**  
**(in millions)**

|                                                        |                |                       |
|--------------------------------------------------------|----------------|-----------------------|
| <b>Cash flows from operating activities</b>            |                |                       |
| Cash received from customers .....                     | \$9,823        |                       |
| Cash paid for goods and services .....                 | <u>(6,978)</u> |                       |
| Net cash provided by operating activities.....         |                | \$2,845               |
| <b>Cash flows from investing activities</b>            |                |                       |
| Cash paid for property and equipment.....              | <u>(1,529)</u> |                       |
| Net cash used by investing activities .....            |                | (1,529)               |
| <b>Cash flows from financing activities</b>            |                |                       |
| Cash received from issuance of<br>long-term debt ..... | 500            |                       |
| Cash received from issuance of<br>common stock.....    | 144            |                       |
| Cash paid for repurchase of common stock....           | (1,001)        |                       |
| Cash paid for repayment of debt .....                  | (122)          |                       |
| Cash paid for dividends.....                           | <u>(14)</u>    |                       |
| Net cash used by financing activities.....             |                | <u>(493)</u>          |
| Net increase in cash.....                              |                | 823                   |
| Cash at beginning of period .....                      |                | <u>1,390</u>          |
| Cash at end of period.....                             |                | <u><u>\$2,213</u></u> |

(Cash flows from operating, investing, and financing activities = Net change in cash)

- (b) Southwest reported \$2,845,000,000 cash from operating activities but spent \$1,529,000,000 to invest in new property and equipment. Its cash from operating activities was sufficient to finance its investing activities. Southwest supplemented the cash from operating activities by issuing long-term debt and additional shares of common stock. It used excess cash to repurchase stock, pay down debt, and pay dividends. In total, it generated more cash from operating activities than it paid for investing and financing activities resulting in a net increase in cash for 2017.

LO 3 BT: AP Difficulty: Hard TOT: 10 min. AACSB: Analytic AICPA FC: Reporting

**EXERCISE 1-14**

**BEESON COMPANY**  
**Balance Sheet**  
**December 31, 2017**

---

| <b>Assets</b>            |                 |
|--------------------------|-----------------|
| Cash.....                | \$18,000        |
| Accounts receivable..... | 12,000          |
| Supplies .....           | 9,500           |
| Equipment.....           | <u>40,000</u>   |
| Total assets.....        | <u>\$79,500</u> |

| <b>Liabilities and Stockholders' Equity</b>      |                |                 |
|--------------------------------------------------|----------------|-----------------|
| <b>Liabilities</b>                               |                |                 |
| Accounts payable .....                           |                | \$16,000        |
| <b>Stockholders' equity</b>                      |                |                 |
| Common stock.....                                | \$40,000       |                 |
| Retained earnings.....                           | <u>23,500*</u> | <u>63,500</u>   |
| Total liabilities and stockholders' equity ..... |                | <u>\$79,500</u> |

**\*\$31,500 – \$8,000**

**(Assets = Liabilities + Stockholders' equity)**

**LO 3 BT: AP Difficulty: Medium TOT: 5 min. AACSB: Analytic AICPA FC: Reporting**

## EXERCISE 1-15

All dollars are in millions.

### (a) Assets

|                           |                   |
|---------------------------|-------------------|
| Cash .....                | \$ 2,291.1        |
| Accounts receivable ..... | 2,883.9           |
| Inventory .....           | 2,357.0           |
| Equipment.....            | 1,957.7           |
| Buildings.....            | 3,759.9           |
| Total assets .....        | <u>\$13,249.6</u> |

### Liabilities

|                            |                   |
|----------------------------|-------------------|
| Notes payable.....         | \$ 342.9          |
| Accounts payable .....     | 2,815.8           |
| Mortgage payable.....      | 1,311.5           |
| Income taxes payable ..... | 86.3              |
| Total liabilities .....    | <u>\$ 4,556.5</u> |

### Stockholders' Equity

|                                 |                   |
|---------------------------------|-------------------|
| Common stock .....              | \$ 2,874.2        |
| Retained earnings .....         | 5,818.9           |
| Total stockholders' equity..... | <u>\$ 8,693.1</u> |

(b)

|               |          |                    |          |                             |
|---------------|----------|--------------------|----------|-----------------------------|
| <b>Assets</b> | <b>=</b> | <b>Liabilities</b> | <b>+</b> | <b>Stockholders' Equity</b> |
| \$13,249.6    |          | \$4,556.5          |          | \$8,693.1                   |

- (c) Nike has relied more heavily on equity than debt to finance its assets. Debt (liabilities) financed 34% of its assets ( $\$4,556.5 \div \$13,249.6$ ) compared to equity financing of 66% ( $\$8,693.1 \div \$13,249.6$ ).

LO 3 BT: AP Difficulty: Medium TOT: 8.0 min. AACSB: Analytic AICPA FC: Reporting

## EXERCISE 1-16

|     |               |   |                    |   |                             |
|-----|---------------|---|--------------------|---|-----------------------------|
| (a) | <b>Assets</b> | = | <b>Liabilities</b> | + | <b>Stockholders' Equity</b> |
|     | \$110,000     | = | \$70,000           | + | (a)                         |
|     | (a)           | = | \$40,000           |   |                             |

|     |               |   |                    |   |                             |
|-----|---------------|---|--------------------|---|-----------------------------|
| (b) | <b>Assets</b> | = | <b>Liabilities</b> | + | <b>Stockholders' Equity</b> |
|     | (b)           | = | \$120,000          | + | \$60,000                    |
|     | (b)           | = | \$180,000          |   |                             |

|     |                                               |   |                 |   |                 |   |                  |   |                                            |
|-----|-----------------------------------------------|---|-----------------|---|-----------------|---|------------------|---|--------------------------------------------|
| (c) | <b>Beginning<br/>Stockholders'<br/>Equity</b> | + | <b>Revenues</b> | - | <b>Expenses</b> | - | <b>Dividends</b> | = | <b>Ending<br/>Stockholders'<br/>Equity</b> |
|     | \$40,000(a)                                   | + | 215,000         | - | 165,000         | - | (c)              | = | \$60,000                                   |
|     |                                               |   | \$ 90,000       | - | (c)             |   |                  | = | \$60,000                                   |
|     |                                               |   |                 |   | (c)             |   |                  | = | \$30,000                                   |

|     |               |   |                    |   |                             |
|-----|---------------|---|--------------------|---|-----------------------------|
| (d) | <b>Assets</b> | = | <b>Liabilities</b> | + | <b>Stockholders' Equity</b> |
|     | \$150,000     | = | (d)                | + | \$70,000                    |
|     | (d)           | = | \$80,000           |   |                             |

|     |               |   |                    |   |                             |
|-----|---------------|---|--------------------|---|-----------------------------|
| (e) | <b>Assets</b> | = | <b>Liabilities</b> | + | <b>Stockholders' Equity</b> |
|     | \$180,000     | = | \$ 55,000          | + | (e)                         |
|     | (e)           | = | \$125,000          |   |                             |

|     |                                               |   |                 |   |                 |   |                  |   |                                            |
|-----|-----------------------------------------------|---|-----------------|---|-----------------|---|------------------|---|--------------------------------------------|
| (f) | <b>Beginning<br/>Stockholders'<br/>Equity</b> | + | <b>Revenues</b> | - | <b>Expenses</b> | - | <b>Dividends</b> | = | <b>Ending<br/>Stockholders'<br/>Equity</b> |
|     | \$70,000                                      | + | (f)             | - | 80,000          | - | 5,000            | = | \$125,000(e)                               |
|     | (f)                                           | = | \$140,000       |   |                 |   |                  |   |                                            |

LO 3 BT: AN Difficulty: Hard TOT: 12.0 min. AACSB: Analytic AICPA FC: Reporting

## EXERCISE 1-17

- (a) Financial statements
- (b) Auditor's opinion
- (c) Notes to the financial statements
- (d) Financial statements
- (e) Management discussion and analysis
- (f) Not disclosed

LO 3 BT: K Difficulty: Easy TOT: 3.0 min. AACSB: None AICPA FC: Reporting

# SOLUTIONS TO PROBLEMS

## PROBLEM 1-1A

- (a) The concern over legal liability would make the corporate form a better choice over a partnership. Also, the corporate form will allow the business to raise cash more easily, which may be of importance in a rapidly growing industry.
- (b) Bob should run his business as a sole proprietor. He has no real need to raise funds, and he doesn't need the expertise provided by other partners. The sole proprietorship form would provide the easiest form. One should avoid a more complicated form of business unless the characteristics of that form are needed.
- (c) The fact that the combined business expects that it will need to raise significant funds in the near future makes the corporate form more desirable in this case.
- (d) It is likely that this business would form as a partnership. Its needs for additional funds would probably be minimal in the foreseeable future. Also, the three know each other well and would appear to be contributing equally to the firm. Service firms, like consulting businesses, are frequently formed as partnerships.
- (e) One way to ensure control would be for Don to form a sole proprietorship. However, in order for this business to thrive it will need a substantial investment of funds early. This would suggest the corporate form of business. In order for Don to maintain control over the business he would need to own more than 50 percent of the voting shares of common stock. In order for the business to grow, he may have to be willing to give up some control.

LO 1 BT: C Difficulty: Medium TOT: 6.0 min. AACSB: None AICPA BB: Legal

## PROBLEM 1-2A

- (a) In deciding whether to extend credit for 30 days, The North Face would be most interested in the balance sheet because the balance sheet shows the assets on hand that would be available for settlement of the debt in the near-term.
- (b) In purchasing an investment that will be held for an extended period, the investor must try to predict the future performance of Amazon.com. The income statement provides the most useful information for predicting future performance.
- (c) In extending a loan for a relatively long period of time, the lender is most interested in the probability that the company will generate sufficient income to meet its interest payments and repay its principal. The lender would therefore be interested in predicting future net income using the income statement. It should be noted, however, that the lender would also be very interested in both the balance sheet and statement of cash flows—the balance sheet because it would show the amount of debt the company had already incurred, as well as assets that could be liquidated to repay the loan. And the company would be interested in the statement of cash flows because it would provide useful information for predicting the company's ability to generate cash to repay its obligations.
- (d) The president would probably be most interested in the statement of cash flows since it shows how much cash the company generates and how that cash is used. The statement of cash flows can be used to predict the company's future cash-generating ability.

LO 3 BT: C Difficulty: Medium TOT: 6.0 min AACSB: None AICPA FC: Reporting

**PROBLEM 1-3A**

(a)

**ELITE SERVICE CO.  
Income Statement  
For the Month Ended June 30, 2017**

---

|                                      |                |                       |
|--------------------------------------|----------------|-----------------------|
| <b>Revenues</b>                      |                |                       |
| Service revenue.....                 |                | <b>\$7,500</b>        |
| <b>Expenses</b>                      |                |                       |
| Salaries and wages expense.....      | <b>\$1,400</b> |                       |
| Supplies expense.....                | <b>1,000</b>   |                       |
| Maintenance and repairs expense..... | <b>600</b>     |                       |
| Advertising expense .....            | <b>400</b>     |                       |
| Utilities expense.....               | <b>300</b>     |                       |
| Total expenses .....                 |                | <b><u>3,700</u></b>   |
| <b>Net income .....</b>              |                | <b><u>\$3,800</u></b> |

**ELITE SERVICE CO.  
Retained Earnings Statement  
For the Month Ended June 30, 2017**

---

|                                         |                       |
|-----------------------------------------|-----------------------|
| <b>Retained earnings, June 1 .....</b>  | <b>\$ 0</b>           |
| <b>Add: Net income .....</b>            | <b><u>3,800</u></b>   |
|                                         | <b>3,800</b>          |
| <b>Less: Dividends .....</b>            | <b><u>1,400</u></b>   |
| <b>Retained earnings, June 30 .....</b> | <b><u>\$2,400</u></b> |

**PROBLEM 1-3A (Continued)**

**ELITE SERVICE CO.**  
**Balance Sheet**  
**June 30, 2017**

| <b>Assets</b>                                   |              |  |                 |
|-------------------------------------------------|--------------|--|-----------------|
| Cash.....                                       |              |  | \$ 4,600        |
| Accounts receivable.....                        |              |  | 4,000           |
| Supplies.....                                   |              |  | 2,400           |
| Equipment .....                                 |              |  | <u>26,000</u>   |
| Total assets .....                              |              |  | <u>\$37,000</u> |
| <b>Liabilities and Stockholders' Equity</b>     |              |  |                 |
| <b>Liabilities</b>                              |              |  |                 |
| Notes payable.....                              | \$12,000     |  |                 |
| Accounts payable .....                          | <u>500</u>   |  |                 |
| Total liabilities .....                         |              |  | \$12,500        |
| <b>Stockholders' equity</b>                     |              |  |                 |
| Common stock .....                              | 22,100       |  |                 |
| Retained earnings.....                          | <u>2,400</u> |  | <u>24,500</u>   |
| Total liabilities and stockholders' equity..... |              |  | <u>\$37,000</u> |

[Revenues – Expenses = Net income or (loss)]

(Beginning retained earnings ± Changes in retained earnings = Ending retained earnings)

(Assets = Liabilities + Stockholders' equity)

- (b) Elite had a very successful first month, earning \$3,800 or 51% of service revenues ( $\$3,800 \div \$7,500$ ). Its net income represents a 17% return on the initial investment ( $\$3,800 \div \$22,100$ ).
- (c) Distributing a dividend after only one month of operations is probably unusual. Most new businesses choose to build up a cash balance to provide for future operating and investing activities or pay down debt. Elite distributed 37% ( $\$1,400 \div \$3,800$ ) of its first month's income but it had adequate cash to do so and still showed a significant increase in retained earnings.

LO 3 BT: AP Difficulty: Hard TOT: 15.0 min. AACSB: Analytic AICPA FC: Reporting

|                     |
|---------------------|
| <b>PROBLEM 1-4A</b> |
|---------------------|

- (a) Rojo Corporation should include the following items in its statement of cash flows:

Cash paid to suppliers  
 Cash dividends paid  
 Cash at beginning of period  
 Cash paid to purchase equipment  
 Cash received from customers  
 Cash received from issuing common stock

**ROJO CORPORATION**  
**Statement of Cash Flows**  
**For the Year Ended December 31, 2017**

|                                                 |                  |                 |
|-------------------------------------------------|------------------|-----------------|
| <b>Cash flows from operating activities</b>     |                  |                 |
| Cash received from customers .....              | \$132,000        |                 |
| Cash paid to suppliers .....                    | <u>(104,000)</u> |                 |
| Net cash provided by operating activities ..... |                  | \$28,000        |
| <b>Cash flows from investing activities</b>     |                  |                 |
| Cash paid to purchase equipment .....           | <u>(12,000)</u>  |                 |
| Net cash used by investing activities .....     |                  | (12,000)        |
| <b>Cash flows from financing activities</b>     |                  |                 |
| Cash received from issuing common stock ...     | 22,000           |                 |
| Cash dividends paid .....                       | <u>(7,000)</u>   |                 |
| Net cash provided by financing activities ..... |                  | <u>15,000</u>   |
| Net increase in cash .....                      |                  | 31,000          |
| Cash at beginning of period .....               |                  | 9,000           |
| Cash at end of period .....                     |                  | <u>\$40,000</u> |

(Cash flows from operating, investing, and financing activities = Net change in cash)

- (b) Rojo Corporation's operating activities provided \$28,000 cash which was adequate to fund its investing activities (\$12,000) and make (\$7,000) of dividend payments.

LO 3 BT: AP Difficulty: Medium TOT: 10.0 min. AACSB: Analytic AICPA FC: Reporting



# **PROBLEM 1-5A**

- (a)
1. Since the boat actually belongs to Miko Liu—not to Micado Corporation—it should not be reported on the corporation's balance sheet. Likewise, the boat loan is a personal loan of Miko's—not a liability of Micado Corporation.
  2. The inventory should be reported at \$25,000, the amount paid when it was purchased. Micado Corporation will record \$36,000 as revenues when the inventory is sold.
  3. The \$10,000 receivable is not an asset of Micado Corporation—it is a personal asset of Miko Liu.

(b)

**MICADO CORPORATION**  
**Balance Sheet**  
**December 31, 2017**

| <b>Assets</b>                                    |               |                 |
|--------------------------------------------------|---------------|-----------------|
| Cash .....                                       |               | \$20,000        |
| Accounts receivable .....                        |               | 40,000*         |
| Inventory .....                                  |               | <u>25,000</u>   |
| Total assets .....                               |               | <u>\$85,000</u> |
| <b>Liabilities and Stockholders' Equity</b>      |               |                 |
| <b>Liabilities</b>                               |               |                 |
| Notes payable .....                              | \$15,000      |                 |
| Accounts payable .....                           | <u>30,000</u> |                 |
| Total liabilities .....                          |               | \$45,000        |
| Stockholders' equity .....                       |               | <u>40,000**</u> |
| Total liabilities and stockholders' equity ..... |               | <u>\$85,000</u> |

\*\$50,000 – \$10,000

\*\*\$85,000 – \$45,000 (Total assets minus total liabilities)

(Assets = Liabilities + Stockholders' equity)

LO 3 BT: AN Difficulty: Medium TOT: 12.0 min. AACSB: Analytic AICPA FC: Reporting

- (a) Apple's total assets at September 27, 2014 were \$231,839,000 and at September 28, 2013 were \$207,000,000.
- (b) Apple had \$13,844,000 of cash and cash equivalents at September 27, 2014.
- (c) Apple had accounts payable totaling \$30,196,000 on September 27, 2014 and \$22,367,000 on September 28, 2013.
- (d) Apple reported net sales in 2014 of \$182,795,000, in 2013 of \$170,910,000, and in 2012 of \$156,508,000.
- (e) Apple's net income increased by \$2,473,000 from 2013 to 2014, from \$37,037,000 to \$39,510,000.

LO 3 BT: AN Difficulty: Medium TOT: 5.0 min. AACSB: Analytic AICPA FC: Reporting

| (a)<br>(amounts in thousands)                              | Columbia<br>Sportswear<br>Company | VF Corporation |
|------------------------------------------------------------|-----------------------------------|----------------|
| 1. Total liabilities                                       | \$436,975                         | \$4,349,258*   |
| 2. Net property, plant<br>and equipment                    | \$291,563                         | \$ 942,181     |
| 3. Net cash provided<br>(used) by investing<br>activities. | \$(184,027)                       | \$(329,555)    |
| 4. Net income                                              | \$141,859                         | \$1,047,505    |

\*\$1,620,241 + \$1,423,581 + \$1,305,436

- (b) Both companies are profitable. VF's net property, plant, and equipment and net income suggest that it is a substantially bigger company than Columbia. VF's net property, plant, and equipment are more than three times as big as those of Columbia and its net income is more than 7 times as big as that of Columbia.

LO 3 BT: AN Difficulty: Medium TOT: 8.0 min. AACSB: Analytic AICPA FC: Reporting

| (a) | (in millions)             | Amazon   | Wal-Mart  |
|-----|---------------------------|----------|-----------|
| 1.  | Total assets              | \$54,505 | \$203,706 |
| 2.  | Accounts receivable (net) | \$5,612  | \$6,778   |
| 3.  | Net sales                 | \$88,988 | \$482,229 |
| 4.  | Net income (loss)         | \$(241)  | \$16,363  |

- (b) Wal-Mart's total assets were approximately 374% greater than Amazon's total assets, and Wal-Mart's net sales were over 5 times greater than Amazon's net sales. Wal-Mart's accounts receivable were 21% greater than Amazon's and represent about 1% of its net sales. Amazon's accounts receivable amount to 6% of its net sales. Both Amazon's and Wal-Mart's accounts receivable are at satisfactory levels.

Wal-Mart's net income was substantially greater than Amazon's, since Amazon reported a loss. It appears that these two companies' operations are comparable in some ways, but Wal-Mart's operations are substantially more profitable.

LO 3 BT: AN Difficulty: Medium TOT: 10.0min AACSB: Analytic AICPA FC: Reporting

- (a) Creditors lend money to companies with the expectation that they will be repaid at a specified point in time in the future. If a company is generating cash from operations in excess of its investing needs, it is more likely that it will be able to repay its creditors. Not only did Xerox actually have negative cash from operations, but all of the cash it received in order to meet its cash deficiency was from issuing new debt. Both of these facts would be of concern to the company's creditors, since it would suggest it will be less likely to be able to repay its debts.
- (b) As a stockholder you are interested in the long-term performance of a company and how that translates into its stock price. Often during the early years of a company's life its cash provided by operations is not sufficient to meet its investment needs, so the company will have to get cash from outside sources. However, in the case of Xerox, the company has operated for many years and has a well-established name brand. The negative cash from operations might suggest operating deficiencies.
- (c) The statement of cash flows reports information on a cash basis. An investor cannot get the complete story on the company's performance and financial position without looking at the income statement and balance sheet. Also, investors would want to look at more than one year's worth of data. The current year might not be representative of past or future years.
- (d) Xerox is a well known company. It has a past record of paying dividends. Its management probably decided to continue to pay a dividend to demonstrate confidence in the company's future. They may have felt that by not paying the dividend for the year they would send a negative message to investors. However, by choosing to pay a cash dividend the company obviously weakened its cash position, and decreased its ability to repay its debts.

LO 3 BT: S Difficulty: Hard TOT: 15.0 min. AACSB: Analytic AICPA FC: Reporting and PC: Problem Solving/Decision Making

**Answers to this question will differ depending on the companies chosen by the student, and the year. We provide the following solution for Apple for the year ended September 27, 2014.**

- (a) During the year ended September 27, 2014, Apple reported net income of \$39,510 million.**
- (b) During the year ended September 27, 2014, Apple reported sales of \$182,795 million.**
- (c) The “Industry” label on the left side of the Profile site tells us that Apple is in the Electronic Equipment industry.**
- (d) Companies also in this industry would include Daktronics, Inc., e. Digital Corporation, Sony Corporation, and Universal Electronics Inc.**
- (e) We chose Sony. During the year ended March 31, 2014, Sony reported sales of \$75.421 million and net loss of \$1,246 million.**

**LO 3 BT: AP Difficulty: Medium TOT: 15.0 min. AACSB: Technology AICPA FC: Reporting**

- (a) The ideas that the Public Company Accounting Oversight Board proposed for expanding the role of auditors in “passing judgement on more of what a company does and says” include weighing in on the quality of a company’s disclosures in its earnings releases and commenting on what the company says in its Management’s Discussion and Analysis section of its annual report.
- (b) Many people were surprised by the fact that many of the financial institutions that failed or required government support received “clean” audit opinions shortly before they announced their troubles. This caused some people to think that auditors should reveal more specific information.
- (c) The proposed Auditor’s Discussion and Analysis report would include information about the auditor’s views on the company’s use of judgments, estimates and accounting policies. The auditor would also discuss whether it believes the company’s financial reporting practices are aggressive.
- (d) It is likely that auditors would have mixed opinions of these proposals. On-the-one-hand, the expansion of the auditor’s role would create new revenue opportunities for auditors. However, the expansion of duties could very well create additional tension between the auditor and the client. Since the company is actually the one that hires the auditor, auditors might be reluctant to reveal too much. Also, many of these new duties appear to be less clearly defined than expressing an opinion on whether statements are presented in accordance with GAAP. This lack of clearly defined criteria could increase the auditor’s legal exposure.

LO 3 BT: S Difficulty: Hard TOT: 25.0 min. AACSB: Technology and Reflective-Thinking AICPA PC: Problem Solving/Decision Making

- (a) The Report of Independent Registered Public Accounting Firm indicates that Ernst & Young LLP performed the audit of Apple's financial statements.
- (b) The Consolidated Statements of Operations states that its earnings per share were \$6.49 in 2014.
- (c) Management Discussion and Analyses of Financial Condition and Results of Operations, Item 7, Sales Data indicates that net sales in foreign countries were \$96,101 million in 2014.
- (d) Per Part II, Item 6, Selected Financial Data, Net Sales in 2012 were \$156,508 million.
- (e) The Shareholders' Equity section of the Consolidated Balance Sheets states that 12,600,000,000 shares were authorized.
- (f) Per the Consolidated Statements of Cash Flows, \$9,571 million was spent on capital expenditures.
- (g) Note 1 states that depreciation is based on "the lesser of 30 years or the remaining life of the underlying buildings."
- (h) Per the Consolidated Statement of Financial Position, inventories were \$2,111 million in 2013.

LO 3 BT: AN Difficulty: Medium TOT: 20 min. AACSB: Analytic AICPA FC: Reporting

**To: Marci Ling**

**From: Student**

I have received the balance sheet of Samco Company, Inc. as of December 31, 2017. The purpose of a balance sheet is to report a company's financial position at a point in time. It reports what the company owns (assets) and what it owes (liabilities) and the net amount attributed to owners (equity). A number of items in this balance sheet are not properly reported. They are:

- (1) The balance sheet should be dated as of a specific date, not for a period of time. Therefore, it should be stated "December 31, 2017."
- (2) Equipment should be below Supplies on the balance sheet.
- (3) Accounts receivable should be shown as an asset and reported between Cash and Supplies on the balance sheet.
- (4) Accounts payable should be shown as a liability, not an asset. Therefore, it should be reported in the liability section, after notes payable.
- (5) Liabilities and stockholders' equity should be shown separately on the balance sheet. Common stock, Retained earnings, and Dividends are not liabilities.
- (6) Common stock, Retained earnings, and Dividends are part of stockholders' equity. The Dividends account is not reported on the balance sheet but is subtracted from beginning retained earnings to arrive at the ending balance.

**A correct balance sheet is as follows:**

**SAMCO COMPANY, INC.**  
**Balance Sheet**  
**December 31, 2017**

| <b>Assets</b>                                    |                 |                        |
|--------------------------------------------------|-----------------|------------------------|
| Cash.....                                        |                 | \$ 9,000               |
| Accounts receivable.....                         |                 | 6,000                  |
| Supplies .....                                   |                 | 1,000                  |
| Equipment .....                                  |                 | <u>18,000</u>          |
| Total assets.....                                |                 | <u><u>\$34,000</u></u> |
| <b>Liabilities and Stockholders' Equity</b>      |                 |                        |
| <b>Liabilities</b>                               |                 |                        |
| Notes payable .....                              | \$10,000        |                        |
| Accounts payable .....                           | <u>4,000</u>    |                        |
| Total liabilities .....                          |                 | \$14,000               |
| <b>Stockholders' equity</b>                      |                 |                        |
| Common stock.....                                | 12,000          |                        |
| Retained earnings.....                           | <u>8,000*</u>   | <u>20,000</u>          |
| Total liabilities and stockholders' equity ..... |                 | <u><u>\$34,000</u></u> |
|                                                  |                 |                        |
| *Retained earnings .....                         | \$10,000        |                        |
| Less: Dividends.....                             | <u>2,000</u>    |                        |
| Ending retained earnings .....                   | <u>\$ 8,000</u> |                        |

(Assets = Liabilities + Stockholders' equity)

LO 3 BT: C Difficulty: Medium TOT: 15.0 min. AACSB: None AICPA FC: Reporting

- (a) Investors rely on auditors to perform an independent assessment of a company. If the auditor owns stock in that company, he or she might not be able to act in an independent and impartial manner.
- (b) There are pros and cons to this argument. On the positive side, it could be argued that as long as a person has no direct relationship with a client company, that person will not influence the findings of the work. However, a counter argument is that an influential partner within a firm, who had an investment in a client that he or she didn't work on, might be tempted to try to influence the findings of the audit if he or she feared that the findings were going to negatively affect the value of his or her investment.
- (c) The fact that four firms have become so big means that prohibiting employees of those accounting firms from buying stock in clients of the firm would bar those employees from investing in roughly 25% of publicly traded firms. Some have argued that such restrictive rules would create undue hardship, and unfairly restrict the investment options of these people. They also argue that in such a large organization it is increasingly unlikely that an individual who does not work on a particular audit will be able to influence the outcome of that audit. As a consequence, rules that focus on restricting investments by those employees actually involved in the audit of a client may be most reasonable and most effective.
- (d) Answers to this question will vary. This is a particularly difficult issue since the rule effectively eliminates the individual's control over their investment portfolio. They did nothing wrong when they bought the shares, but now they are being forced to sell when it is not advantageous.
- (e) The management of PricewaterhouseCoopers noted that auditor independence is vitally important to the audit function. If investors don't think the auditor is independent of the client they will lose faith in auditing, which would have dire consequences for securities markets. Therefore, it was important that the firm make a bold, unambiguous response to address this problem.

LO 3 BT: E Difficulty: Hard TOT: 30.0 min. AACSB: Ethics AICPA FC: Reporting and PC: Professional Demeanor

- (a) Answers to the following will vary depending on students' opinions.
- (i) This does not represent the hiding of assets, but rather a choice as to the order of use of assets. This would seem to be ethical.
  - (ii) This does not represent the hiding of assets, but rather is a change in the nature of assets. Since the expenditure was necessary, although perhaps accelerated, it would seem to be ethical.
  - (iii) This represents an intentional attempt to deceive the financial aid office. It would therefore appear to be both unethical and potentially illegal.
  - (iv) This is a difficult issue. By taking the leave, actual net income would be reduced. The form asks the applicant to report actual net income. However, it is potentially deceptive since you do not intend on taking unpaid absences in the future, thus future income would be higher than reported income.
- (b) Companies might want to overstate net income in order to potentially increase the stock price by improving investors' perceptions of the company. Also, a higher net income would make it easier to receive debt financing. Finally, managers would want a higher net income to increase the size of their bonuses.
- (c) Sometimes companies want to report a lower income if they are negotiating with employees. For example, professional sports teams frequently argue that they cannot increase salaries because they aren't making enough money. This also occurs in negotiations with unions. For tax accounting (as opposed to the financial accounting in this course) companies frequently try to minimize the amount of reported taxable income.
- (d) Unfortunately many times people who are otherwise very ethical will make unethical decisions regarding financial reporting. They might be driven to do this because of greed. Frequently it is because their superiors have put pressure on them to take an unethical action, and they are afraid to not follow directions because they might lose their job. Also, in some instances top managers will tell subordinates that they should be a team player, and do the action because it would help the company, and therefore would help fellow employees.

LO3 BT: E Difficulty: Hard TOT: 30.0 min. AACSB: Reflective Thinking AICPA FC: Reporting and PC: Problem Solving/Decision Making

**No solution necessary.**

- (a) The 5 aspirations relate to the company's goals related to sustaining its business, its brands, its people, its community and the planet.**
- (b) The annual reports discussed in the chapter report on a company's financial results and financial position. Financial annual reports have a format and content that follows requirements specified by**

accounting regulators. The primary contents of a financial annual report is the company's financial statements, which are audited by independent accountants. The Clif Bar & Company Annual Report describes the company's goals and results related to its 5 aspirations. The report does not follow a prescribed format, but instead can take whatever form, and include any content that the company chooses. The report is not audited by an outside body.

LO 3 BT: AN Difficulty: Medium TOT: 15.0 min. AACSB: Analytic and Technology AICPA FC: Reporting

### IFRS1-1

The International Accounting Standards Board, IASB, and the Financial Accounting Standards Board, FASB, are two key players in developing international accounting standards. The IASB releases international standards known as International Financial Reporting Standards (IFRS). The FASB releases US standards, referred to as Generally Accepted Accounting Standards or GAAP.

LO4 BT: C Difficulty: Easy TOT: 5.0 min. AACSB: Diversity AICPA FC: Reporting and BB: International/Global

### IFRS1-2

A single set of high-quality accounting standards is needed because of increases in multinational corporations, mergers and acquisitions, use of information technology, and international financial markets.

LO 4 BT: C Difficulty: Easy TOT: 3.0 min. AACSB: Diversity AICPA FC: Reporting and BB: International/Global

## **IFRS1-3      INTERNATIONAL FINANCIAL REPORTING PROBLEM**

- (a) Ernst & Young et Autres; Deloitte & Associes**
- (b) 22 avenue Montaigne, Paris, France 75008**
- (c) The company reports in Euros.**

**LO 4 BT: AN Difficulty: Medium TOT: 5.0 min. AACSB: Technology and Diversity AICPA FC: Reporting and BB: International/Global**

# CHAPTER 2

## A Further Look at Financial Statements

### Learning Objectives

1. Identify the sections of a classified balance sheet.
2. Use ratios to evaluate a company's profitability, liquidity, and solvency.
3. Discuss financial reporting concepts.
- \*4. Compare the classified balance sheet format under GAAP and IFRS.

# Chapter Outline

## Learning Objective 1 - Identify the Sections of a Classified Balance Sheet.

In a **classified balance sheet**, companies often group similar assets and similar liabilities together using standard classifications and sections. This is useful because items within the groups have similar economic characteristics. The groupings help users determine: (1) whether the company has enough assets to pay its debts and (2) what claims by short-and long-term creditors exist on the company's total assets.

A **classified balance sheet** generally contains the following standard classifications:

### ◆ Current Assets

- Assets that are expected to be converted to cash or used up in the business within one year or one operating cycle whichever is longer.
- Examples of current assets: cash, short-term investments (which include short-term U.S. government securities), receivables (accounts receivable, notes receivable, and interest receivable), inventories, and prepaid expenses (rent, supplies, insurance, and advertising).
- On the balance sheet, current assets are listed in the order in which they are expected to be converted into cash (order of liquidity).
- Some companies use a period longer than one year to classify assets and liabilities as current because they have an operating cycle longer than one year. The **operating cycle** of a company is the average time required to go from cash to cash in producing revenue-buy inventory, sell it, and collect the cash from the customers.

### TEACHING TIP

(a) Discuss the difference between notes receivable and accounts receivable; different types of prepaid expenses; and the fact that inventory, supplies, and prepaid expenses will become expenses when they are used up. Explain why these assets are classified as current. (b) Discuss the concept of short-term investments.

### ◆ Long-Term Investments

- Assets that can be converted into cash, but whose conversion is not expected within one year.
- These include long-term assets not currently used in the company's operations (i.e., land, buildings, etc.) and investments in stocks and bonds of other corporations.

### TEACHING TIP

Explain to students that there are individuals in large companies who do nothing but take care of long-term investments.

Discuss the difference between short-term and long-term investments in stocks and bonds of other corporations.

**Example:** A homebuilder has the following assets: (1) lots in a subdivision that are ready for sale to buyers; (2) land on which the corporate office building sits; and (3) land several miles north of town on which it plans a new subdivision in 5 years. Ask students where each of these parcels of land would go on a classified balance sheet. This shows that the classification depends on the use by the company.

Also, ask students how they would classify a certificate of deposit that will mature in 5 years and be used to pay for the new subdivision.

#### ◆ Property, Plant, and Equipment

- Assets with relatively long useful lives.
- Assets currently used in operating the business.
- Sometimes called *fixed assets* or *plant assets*.
- Examples include land, buildings, machinery, equipment, and furniture and fixtures.
- Record these assets at **cost** and **depreciate** them (except land) over their useful lives. The full purchase price is not expensed in the year of purchase because the assets will be used for more than one accounting period.
  - **Depreciation** is the practice of allocating the cost of assets to a number of years.
  - **Depreciation expense** is the amount of the allocation for one accounting period.
  - **Accumulated depreciation** is the total amount of depreciation that has been expensed since the asset was placed in service.
  - Cost less accumulated depreciation is reported on the balance sheet.

### TEACHING TIP

Explain that depreciation is not a valuation of assets. It is the allocation of their cost over the periods in which they will benefit the business. Many students believe the balance sheet shows the value of the business. Stress that accounting (with a few exceptions that are covered in later chapters) records cost – not value.

#### ◆ Intangible Assets

- Noncurrent assets.
- Assets that have no physical substance.
- Examples are goodwill, patents, copyrights, and trademarks or trade names.

### TEACHING TIP

Briefly discuss types of intangible assets. Encourage students to think about companies that have large investments in intangible assets. Remind students that this topic is discussed in more detail in Chapter 9.

### ◆ Current Liabilities

- Obligations that are to be paid within the coming year or operating cycle whichever is longer.
- Common examples are notes payable, accounts payable, wages payable, bank loans payable, interest payable, taxes payable, and current maturities of long-term obligations.
- Within the current liabilities section, companies usually list notes payable first, followed by accounts payable, and then the remaining items in the order of their magnitude.

#### TEACHING TIP

- (a) Discuss the following payables: wages payable, interest payable, taxes payable, etc.  
(b) Discuss the difference between accounts payable and notes payable. (c) Discuss how notes payable can be current or long-term, depending on the maturity date.

### ◆ Long-Term Liabilities

- Obligations expected to be paid after one year.
- Liabilities in this category include bonds payable, mortgages payable, long-term notes payable, lease liabilities, and pension liabilities.
- Many companies report long-term debt maturing after one year as a single amount in the balance sheet and show the details of the debt in notes that accompany the financial statements.

#### TEACHING TIP

Bonds have been mentioned several times. Students need to understand the difference between notes payable and bonds payable. Also discuss the difference between interest payable and notes or bonds payable.

### ◆ Stockholders' Equity: Stockholders' equity consists of two parts:

- **Common Stock** - investments of assets into the business by the stockholders.
- **Retained Earnings** - income retained for use in the business.

#### TEACHING TIP

Tell students that companies can issue different types of stock and that common stock is sometimes referred to as capital stock. Mention that stockholders' equity is discussed in more detail in Chapter 11. Until then, they will work with common stock.

## Learning Objective 2 – Use Ratios to Evaluate a Company’s Profitability, Liquidity, and Solvency.

- ◆ **Ratio analysis** expresses the relationship among selected items of financial statement data.
  - A **ratio** expresses the mathematical relationship between one quantity and another.
  - Ratios shed light on company performance
    - **Intracompany** comparisons – covers two years for the same company
    - **Industry-average** comparisons – based on average ratios for particular industries
    - **Intercompany** comparisons – based on comparisons with a competitor in the same industry.

### TEACHING TIP

Discuss your preference for rounding. Explain how to compute percentages. Encourage students to use a spreadsheet for computations and presentation. Also encourage them to see if their answers are reasonable and to always reflect on what the computation means – not to just make the computation and then fail to understand what it tells a user.

### TEACHING TIP

Discuss ways for students to find industry averages and ratios from sources on the web and in the library. Encourage them to start watching shows on the financial networks and reading business periodicals as well as the business section of newspapers. Ask them to share interesting information with the class.

- ◆ **Using the Income Statement**--Creditors and investors are interested in evaluating profitability. Profitability is frequently used as a test of management’s effectiveness. To supplement an evaluation of the income statement, ratio analysis is used. **Profitability ratios** - measure the operating success of a company for a given period of time.
  - **Earnings per share**
    - Is a profitability ratio that measures the net income earned on each share of common stock.
    - Is computed by dividing (**net income** less preferred dividends) by the average number of **common shares** outstanding during the year.
    - By comparing earnings per share of a single company over time, one can evaluate its relative earnings performance on a per share basis.
    - Comparisons of earnings per share across companies are not meaningful because of the wide variations in numbers of shares of outstanding stock among companies.

### TEACHING TIP

Ask students to watch one of the financial channels for at least 30 minutes and report on the references to earnings per share. If you use a discussion board, students can post their comments on it. This is an efficient way to share the information with the class without taking up too much classroom time.

♦ **Using A Classified Balance Sheet**--An analysis of the relationship between a company's assets and liabilities can provide users with information about the firm's liquidity and solvency.

▪ **Liquidity** - The ability to pay obligations expected to come due within the next year or operating cycle. Two measures of liquidity include:

○ **Working capital**

- Measure of short-term ability to pay obligations
- Excess of current assets over current liabilities
- Positive **working capital** (Current Assets > Current Liabilities) indicates the likelihood for paying liabilities is favorable.
- Negative **working capital** (Current Liabilities > Current Assets) indicates that a company might not be able to pay short-term creditors and may be forced into bankruptcy.

○ **Current ratio**

- Measure of short-term ability to pay obligations
- Computed by dividing current assets by current liabilities
- More dependable indicator of liquidity than working capital
- Does not take into account the composition of current assets (like slow-moving inventory versus cash)

### TEACHING TIP

Explain that a 1.60:1 ratio means that for every \$1 of current liabilities, the company has \$1.60 in current assets.

Also, students need to be aware of the fact that the composition of the assets may be very important. For example if a company had most of its current assets in cash it could be more sure of its liquidity position than another company with the majority of its current assets in inventory. What happens if the company cannot sell the inventory?

▪ **Solvency** - The ability of a company to pay interest as it comes due and to repay the balance of debt due at its maturity. Solvency ratios include:

○ **Debt to Assets Ratio**

- Measures the percentage of assets financed by creditors
- The higher the percentage of debt financing, the riskier the company.
- Computed by dividing total debt (both current and long-term liabilities) by total assets

### TEACHING TIP

Compare ratios to tests performed by a doctor. Each test provides information. The doctor must ask the patient questions and then review the results of all tests before making a diagnosis. Students need to realize that ratios are indicators and must be analyzed properly before a decision can be made regarding the financial condition of a company. For example, a negative working capital does not always mean potential bankruptcy. The results of other ratios, as well as specific company information, must be analyzed.

- ◆ In the **statement of cash flows**, cash provided by operating activities indicates the cash-generating capability of the company. However, cash provided by operating activities fails to take into account that a company must invest in new property, plant, and equipment and at least maintain dividends at current levels to satisfy investors.
  - Free cash flow indicates a company's ability to generate cash from operations that is sufficient to pay debts, acquire assets, and distribute dividends.
  - It describes the cash remaining from operations after adjusting for capital expenditures and dividends.
  - It is computed by subtracting capital expenditures and cash dividends from cash provided by operations.

### TEACHING TIP

Go over the free cash flow calculation for Best Buy.

Ask students to compute the free cash flow for a company and report their findings to the class.

## Learning Objective 3 – Discuss Financial Reporting Concepts.

- ◆ **Generally Accepted Accounting Principles (GAAP)** are a set of rules and practices that provide answers to the following questions.
  - How does a company decide on the type of financial information to disclose?
  - What format should a company use?
  - How should a company measure assets, liabilities, revenues, and expenses?
- ◆ The **Securities and Exchange Commission (SEC)** is a U.S. government agency that oversees U.S. financial markets and accounting standard-setting bodies.
- ◆ The primary accounting standard-setting body in the U. S. is the **Financial Accounting Standards Board (FASB)**.
- ◆ The **International Accounting Standards Board (IASB)** sets standards called **International Financial Reporting Standards (IFRS)** for many countries outside the U.S.
- ◆ The **Public Company Accounting oversight Board (PCAOB)** determines auditing standards and reviews the performance of auditing firms.

### TEACHING TIP

Remind students that financial statements consist of the income statement, retained earnings statement, balance sheet, and statement of cash flows. Again, it may be good to remind them that there are internal and external users.

### TEACHING TIP

Discuss the issue of IFRS and making different countries' businesses more "transparent." What does transparency mean in this context? Why is this so important for successful transition to IFRS?

- ♦ **Qualities of Useful Information**--To be useful, information should possess two fundamental qualities: **relevance and faithful representation**.
  - **Relevance** - if information has the ability to make a difference in a decision scenario, it is **relevant**. Accounting information is considered **relevant** if it provides information that
    - has **predictive value**--helps provide accurate expectations about the future
    - has **confirmatory value** – confirms or corrects prior expectations.
    - an item is **material** when its size makes it likely to influence the decision of an investor or a creditor.

### TEACHING TIP

When you were trying to decide what to wear to class, did it matter whether you were going to an English class or an Accounting class? No. That information was not relevant.

On the other hand, when you were making the decision, the outside temperature did make a difference. Therefore, the temperature was a relevant factor.

### TEACHING TIP

Materiality allows firms to modify GAAP. Assume a firm buys a new electric pencil sharpener that is expected to last for 6 years for \$18. GAAP say that the pencil sharpener, because it is expected to last for 6 years, should be listed as an asset and depreciated—or charged off—over 6 years at a rate of \$3 per year. The materiality constraint allows the firm to expense the pencil sharpener immediately because the \$18 expense will not make a difference to the users of financial statements.

- **Faithful Representation** - information accurately depicts what really happened. To provide a faithful representation, information must be:
  - **complete**—nothing important has been omitted

- **neutral**—is not biased toward one position or another
- **free from error**

#### TEACHING TIP

Financial statements must present faithful representation to be of value. The SEC requires firms listed on an organized exchange to have financial statements audited by a Certified Public Accountant (CPA). The audit ensures faithful representation. Therefore, the public can feel more comfortable about information contained in audited financial statements.

#### ▪ Enhancing Qualities

- **Comparability**—when different companies use the same accounting principles. To make a comparison, companies must **disclose** the accounting methods used.
- **Consistency**—when a company uses the same accounting principles and methods from year to year
- **Verifiable**—information that is proven to be free from error.
- **Timely**—information that is available to decision makers before it loses its capacity to influence decisions.
- **Understandability**—information presented in a clear fashion so that users can interpret it and comprehend its meaning.

#### TEACHING TIP

Firms must follow prescribed accounting principles if users are to compare financial statements.

Consistency requires firms to be consistent in the accounting principles used. However, if there is justification for changing from one principle to another, it must be explained in the Notes to the Financial Statements. The explanation lets users know what has happened to make the difference.

- ◆ **Assumptions and Principles in Financial Reporting**--To develop accounting standards, the FASB relies on the following key assumptions and principles:

- **Monetary Unit Assumption**--States that only transactions expressed in money are included in accounting records.

#### TEACHING TIP

An example of a transaction expressed in terms of money would be the purchase of a building, paying the rent for the month, or paying the payroll. On the other hand, hiring an employee, ordering a product, or making a bid on a perspective job would not be a transaction expressed in terms of money.

#### ▪ Economic Entity Assumption

- Every economic entity can be separately identified and accounted for.

- Economic events can be identified with a particular unit of accountability.

**TEACHING TIP**

Explain to students that if they owned a bicycle shop in a nearby community, the economic transactions of the business would be kept separate from the students' personal transactions.

- **Periodicity Assumption** - allows the business to be divided into artificial time periods that are useful for reporting.

**TEACHING TIP**

Financial statements may be prepared monthly, quarterly, or annually, depending on the needs of the business.

- **Going Concern Assumption**--Assumes the business will remain in operation for the foreseeable future

**TEACHING TIP**

Use this topic as a way to discuss some of the decisions the CPA must make about risk. What would be some of the factors that the CPA as an auditor would look for to support the going concern assumption?

◆ **Principles in Financial Reporting**

- **Measurement Principles**--GAAP generally uses one of two measurement principles: the cost principle or the fair value principle
  - **Historical Cost Principle** – requires assets to be recorded at original cost because that amount is verifiable.
  - **Fair value Principle** – requires that assets and liabilities should be reported at fair value (the price received to sell an asset or settle a liability).

**TEACHING TIP**

Ask students to assume they just bought a delivery van for their business. The van had a sticker price of \$18,000. A neighbor purchased an identical van last week for \$16,500. The student gave \$15,000 for the van. At which price should the van be recorded?

- **Full Disclosure Principle** – requires that all circumstances and events that would make a difference to financial statement users should be disclosed.

- ♦ **Cost Constraint**--Determining whether the cost that companies will incur to provide the information will outweigh the benefit that financial statement users will gain from having the information available.

# IFRS

## ♦ A Look at IFRS

**\*Learning Objective 4 – Compare the classified balance sheet under GAAP and IFRS.**

The classified balance sheet, although generally required internationally, contains certain variations in format when reporting under IFRS.

## ♦ KEY POINTS

### Similarities

- IFRS generally requires a classified statement of financial position similar to the classified balance sheet under GAAP.
- IFRS follows the same guidelines as this textbook for distinguishing between current and noncurrent assets and liabilities.

### Differences

- IFRS recommends but does not require the use of the title “statement of financial position” rather than balance sheet.
- The format of statement of financial position information is often presented differently under IFRS. Although no specific format is required, most companies that follow IFRS present statement of financial position information in this order:
  - Noncurrent assets
  - Current assets
  - Equity
  - Noncurrent liabilities
  - Current liabilities
- Under IFRS, current assets are usually listed in the reverse order of liquidity. For example, under GAAP cash is listed first, but under IFRS it is listed last.
- IFRS has many differences in terminology from what are shown in your textbook. For example, in the sample statement of financial position illustrated on the next page, notice in the investment category that stock is called shares.

**FRANKLIN CORPORATION**  
Statement of Financial Position  
October 31, 2017

| <u>Assets</u>                  |              |               |                 |
|--------------------------------|--------------|---------------|-----------------|
| Intangible assets              |              |               |                 |
| Patents                        |              |               | \$ 3,100        |
| Property, plant, and equipment |              |               |                 |
| Land                           |              | \$10,000      |                 |
| Equipment                      | \$24,000     |               |                 |
| Less: Accumulated depreciation | <u>5,000</u> | <u>19,000</u> | 29,000          |
| Long-term investments          |              |               |                 |
| Share investments              |              | 5,200         |                 |
| Investment in real estate      |              | <u>2,000</u>  | 7,200           |
| Current assets                 |              |               |                 |
| Prepaid insurance              |              | 400           |                 |
| Supplies                       |              | 2,100         |                 |
| Inventory                      |              | 3,000         |                 |
| Notes receivable               |              | 1,000         |                 |
| Accounts receivable            |              | 7,000         |                 |
| Debt investments               |              | 2,000         |                 |
| Cash                           |              | <u>6,600</u>  | <u>22,100</u>   |
| Total assets                   |              |               | <u>\$61,400</u> |

| <u>Equity and Liabilities</u> |  |              |                 |
|-------------------------------|--|--------------|-----------------|
| Equity                        |  |              |                 |
| Share capital                 |  |              | \$20,050        |
| Retained earnings             |  |              | 14,000          |
| Non-current liabilities       |  |              |                 |
| Mortgage payable              |  | \$10,000     |                 |
| Notes payable                 |  | <u>1,300</u> | 11,300          |
| Current liabilities           |  |              |                 |
| Notes payable                 |  | 11,000       |                 |
| Accounts payable              |  | 2,100        |                 |
| Salaries and wages payable    |  | 1,600        |                 |
| Unearned service revenue      |  | 900          |                 |
| Interest payable              |  | <u>450</u>   | <u>16,050</u>   |
| Total equity and liabilities  |  |              | <u>\$61,400</u> |

- Both GAAP and IFRS are increasing the use of fair value to report assets. However, at this point IFRS has adopted it more broadly. As examples, under IFRS companies can apply fair value to property, plant, and equipment; natural resources; and in some cases intangible assets.

## ◆ LOOKING TO THE FUTURE

The IASB and the FASB are working on a project to converge their standards related to financial statement presentation. A key feature of the proposed framework is that each of the statements will be organized in the same format, to separate an entity's financing activities from its operating and investing activities and, further, to separate financing activities into transactions with owners and creditors. Thus, the same classifications used in the statement of financial position would also be used in the income statement and the statement of cash flows. The project has three phases. You can follow the joint financial presentation project at the following link: [http://www.fasb.org/project/-financial\\_\\_statement\\_presentation.shtml](http://www.fasb.org/project/-financial__statement_presentation.shtml).

## Chapter 2 Review

Identify sections of a classified balance sheet. Explain the differences between current and long-term assets and liabilities. Identify accounts that fit into each section.

What is measured by profitability ratios? Compute EPS and discuss how it is used to measure profitability.

Define liquidity and solvency. Identify and compute ratios for analyzing a firm's liquidity and solvency. How are these ratios interpreted?

Use the statement of cash flows to evaluate solvency. Compute free cash flow and describe what it measures.

What are generally accepted accounting principles? Name the U.S. and international standard-setting bodies that establish these principles.

Define and explain the significance of relevance, faithful representation, comparability, and consistency. Define and explain assumptions and principles that are used in financial reporting. Define and explain cost constraint.

**Chapter 2**

---

- \_\_\_\_\_ 1. Assets of a relatively permanent nature that are being used in the business and are not intended for resale.
- \_\_\_\_\_ 2. The quality of information that indicates the information makes a difference in a decision.
- \_\_\_\_\_ 3. A measure used to evaluate a company's liquidity and short-term debt-paying ability, computed by dividing current assets by current liabilities.
- \_\_\_\_\_ 4. A company's ability to pay interest as it comes due, and debt at maturity .
- \_\_\_\_\_ 5. The constraint of determining whether an item is large enough to likely influence the decision of an investor or creditor.
- \_\_\_\_\_ 6. An assumption that economic events can be identified with a particular unit of accountability.
- \_\_\_\_\_ 7. Obligations that companies reasonably expected to pay within the next year or operating cycle, whichever is longer.
- \_\_\_\_\_ 8. Use of the same accounting principles and methods from year to year within a company.
- \_\_\_\_\_ 9. Cash provided by operating activities adjusted for capital expenditures and dividends paid.
- \_\_\_\_\_ 10. An accounting principle that states that companies should record assets at their cost.

## Solutions to Vocabulary Quiz

### Chapter 2

---

1. Property, plant, and equipment, or fixed assets, or plant assets
2. Relevance
3. Current ratio
4. Solvency
5. Materiality
6. Economic entity assumption
7. Current liabilities
8. Consistency
9. Free cash flow
- 10 . Cost principle or historical cost principle

---

**Chapter 2**

---

1. **Earnings per share** is:
  - a. a measure of liquidity.
  - b. most meaningful when used to analyze the performance of different companies.
  - c. a measure of net income earned on each share of common stock.
  - d. determines the amount of dividends that a company pays.
2. Which of the characteristics is **not necessary** in order for accounting information to provide **faithful representation**?
  - a. conservative.
  - b. free from error.
  - c. complete.
  - d. neutral.
3. **Consistency** of information means that:
  - a. the information would influence a decision.
  - b. different companies use the same accounting principles.
  - c. the amounts involved are material.
  - d. a company uses the same accounting principles and methods from year to year.
4. **Comparability** of information results when:
  - a. the information would influence a decision.
  - b. different companies use the same accounting principles.
  - c. the amounts involved are material.
  - d. a company uses the same accounting principles and methods from year to year.
5. The **periodicity** assumption:
  - a. indicates that the company will continue in operation long enough to carry out its existing objectives.
  - b. requires that financial statements be prepared each month.
  - c. states that the life of a business can be divided into artificial time periods.
  - d. is an example of a constraint.
6. **Current liabilities** include:
  - a. obligations to be paid within the coming year.
  - b. accounts payable.
  - c. wages payable.
  - d. all of these answer choices are correct.
7. **Working capital** is:
  - a. current assets less current liabilities.
  - b. current assets divided by current liabilities.
  - c. income divided by average assets.
  - d. net income divided by net sales.

8. All of the following are current assets **except**:
- a. accounts receivable.
  - b. cash.
  - c. patents.
  - d. marketable securities.
9. The current ratio is a:
- a. solvency ratio.
  - b. profitability ratio.
  - c. liquidity ratio.
  - d. none of these answer choices are correct.
10. Free cash flow:
- a. describes an unlimited supply of cash.
  - b. provides additional insight regarding a company's cash-generating ability.
  - c. describes the cash remaining from operations after adjusting for capital expenditures and dividends.
  - d. Both provides additional insight regarding a company's cash-generating ability and describes the cash remaining from operations after adjusting for capital expenditures and dividends.

## Solutions to Multiple Choice

### Chapter 2

---

1. c
2. a
3. d
4. b
5. c
6. d
7. a
8. c
9. c
10. d

## Exercise 1 - Research and Communication Activity

### Chapter 2

---

Blaire and Mark married last year and immediately opened a small computer business. Blaire is responsible for managing the business while Mark is responsible for the accounting. At the end of each month, Mark tells Blaire that the business is earning a profit. Blaire, however, is very frustrated and skeptical. She calls the bank periodically and much to her amazement, the business has no more money in the checking account than it did on the opening day. Blaire and Mark heard that you were taking an accounting course at a local university and have come to you, a friend, for help.

Write a memo to the young entrepreneurs explaining how it is indeed possible to have a net income and not have an increase in cash.

**Solution:**

**DATE:** 9/5/201X

**TO:** Blaire and Mark

**FROM:** Accounting Student

Net income and cash flow are totally different. Therefore, it is quite possible for a business to have a significant amount of net income and no increase in cash. Think about the transactions of your business during the past year. Has inventory increased? Have you purchased additional equipment, furniture, or fixtures? Did you withdraw money from the business. All of the aforementioned transactions, while necessary, decrease cash. However, if you have added inventory, equipment, furniture, and/or fixtures, you have increased assets other than cash. Therefore your business is worth more than it was at the onset.

## Exercise 2 – Financial Statement Analysis and Decision Making Activity

### Chapter 2

---

Select two competing companies (i.e. Ford—GM, Eli Lilly—Merck, Ben & Jerry's—Edy's), and locate annual reports for these companies on the internet. These companies can be found on the Internet at <http://www.ford.com>, <http://www.gm.com>, <http://www.elililly.com>, <http://www.merck.com>, <http://www.benjerry.com>, and <http://www.edys.com>.

1. Compute the current ratio, debt to assets ratio, and free cash flow for the companies you have selected. Discuss your findings.
2. Which company would you recommend as an investment?
3. Why did you answer Question 2 as you did? Have you considered the issues presented in the Decision Tools in Chapter 2? Explain how this affected your recommendation.

**Solutions: Information available on website.**

**Note: The website is constantly being updated. Please check to see that the information requested in this exercise is available.**

## Exercise 3 - Ratio Analysis and Creative Activity

### Chapter 2

---

Refer to the loan application prepared for your fictitious business in Campus Town USA in Exercise 3 of Chapter 1 in answering the following questions:

1. Compute the current ratio and debt to assets ratio for your fictitious company.
2. Would you like to amend the financial statements prepared in chapter 1? Additional loan application forms are provided for your convenience.

## Exercise 3 - Ratio Analysis and Creative Activity (Continued)

### Chapter 2

---

---

#### LOAN APPLICATION FORM

Name of Company \_\_\_\_\_

Address \_\_\_\_\_

Phone Number \_\_\_\_\_

---

---

#### Annual Income

Revenues

Cost of goods sold

Operating expenses

Rent

Utilities

Wages

Advertising

Other

Net income (loss)

---

---

#### Assets

Cash

Accounts receivable

Inventory

Property, plant, & equipment

Other

Total assets

---

---

#### Liabilities

Accounts payable

Notes payable

Other

Total liabilities

---

---

#### Stockholders' Equity

Total stockholders' equity

Total liabilities & stockholders' equity

## Exercise 4 - Financial Statements and Creative Activity

### Chapter 2

---

1. Prepare personal financial statements, including an income statement and a balance sheet. Remember to include all of your sources of revenues; income from jobs, allowance from parents, etc. In addition, please consider all of your assets, clothes, jewelry, automobiles, electronic equipment, etc.
2. Keep a record of your income and expenses for a month.
3. At the end of the month, prepare financial statements, including an income statement, balance sheet, and a statement of cash flows.

## Exercise 5 - Financial Statements and Creative Activity

### Chapter 2

---

The Ice Cats, a professional ice hockey team moved to College Town USA. Joe Enterprise, organized Joe's Tees to take advantage of the large number of fans the team attracted by selling tee shirts with the team's name and logo printed in the team's colors. Joe sold the shirts from a cart in front of the arena where the Ice Cats perform. Joe bought the cart for \$5,000. Joe anticipates the cart will last for five years. The shirts cost \$14 and Joe sold them for \$25. In addition, Joe is required to buy a city license for \$125.

During the first season, there were 10 home games at which Joe averaged selling 32 shirts a game. Compute Joe's net income or net (loss).

#### Solution:

|                |            |                  |
|----------------|------------|------------------|
| Revenues       |            | \$8,000          |
| Less expenses: |            |                  |
| Cost of shirts | \$4,480    |                  |
| Cart           | 5,000*     |                  |
| License        | <u>125</u> | <u>9,605</u>     |
| Net loss       |            | <u>(\$1,605)</u> |

\*Most students are not yet familiar with accrual accounting or the concept of depreciation.

You may want to keep a copy of the students' work. This exercise will be revisited in a later chapter.

## Exercise 6 - World Wide Web Research, Financial Statement Analysis, and International Activity

### Chapter 2

---

Select two competing companies, one a domestic company, the other a foreign company (i.e. Nike—Fila and ExxonMobil—BP), and locate annual reports for these companies on the internet. These companies can be found at <http://www.nike.com>, <http://www.fila.com>, <http://www.exxon.com>, and <http://www.bp.com>.

1. Where are the headquarters for the two companies you selected?
2. In what currency are the financial statements of the foreign company stated?
3. How are the financial statements similar? How are the financial statements different?

**Solutions: Information available on website.**

**Note: The website is constantly being updated. Please check to see that the information requested in this exercise is available.**

## Exercise 7 – Accounting Career Activity

### Chapter 2

---

Public accounting is one of the largest sectors of the accounting field. In order to retain a job in public accounting, one must become a Certified Public Accountant (CPA). An accountant may be designated a CPA only after he or she has passed a uniform exam and has met the experience requirements of the state in which they are certified. The American Institute of Certified Public Accountants is responsible for administering the CPA exam. Visit the AICPA at <http://www.aicpa.org> and click on **Students** to find answers to the following questions.

1. What is a CPA? What are the requirements to become a CPA?
2. What are the recommended areas of study to become a CPA?
3. What skills are needed to become a successful accountant/CPA?
4. What are the different career paths in accounting?

**Solutions: Information available on website.**

**Note: The website is constantly being updated. Please check to see that the information requested in this exercise is available.**

## Exercise 8 - World Wide Web Financial Research Activity

### Chapter 2

---

Johnson & Johnson is an international company committed to social responsibility. Visit Johnson & Johnson at <http://www.johnsonjohnson.com> and click on **our Company** and **Our Credo values**.

1. Provide a brief summary outlining Johnson & Johnson's executives' position on social responsibility.
2. List specific examples of social programs in which Johnson & Johnson is involved.

**Solutions: Information available on website.**

**Note: The website is constantly being updated. Please check to see that the information requested in this exercise is available.**

# APPENDIX G

## TIME VALUE OF MONEY

### LEARNING OBJECTIVES

1. Compute interest and future values.
2. Compute present value.
3. Use a financial calculator to solve time value of money problems.

# Chapter Outline

## Learning Objective 1 – Compute Interest and Future Values.

- ◆ **Nature of Interest**---Interest is payment for the use of another person's money. The amount of interest involved in any financing transaction is based on three elements:
  - **Principal (*p*)**: The original amount borrowed or invested.
  - **Interest Rate (*i*)**: An annual percentage of the principal.
  - **Time (*n*)**: The number of years that the principal is borrowed or invested.
- **Simple interest** is computed on the principal amount only. Simple interest is usually expressed as:

$$\begin{aligned}\text{Interest} &= \text{Principal} \times \text{Rate} \times \text{Time} \\ \text{OR} \\ \text{Interest} &= p \times i \times n\end{aligned}$$

- **Compound interest** is computed on principal and on any interest earned that has not been paid or withdrawn. It is the return on (or growth of) the principal for two or more time periods.

### TEACHING TIP

Ask students if they earn simple interest or compound interest on their savings accounts.

Ask them how often their interest is compounded.

Ask students what other reasons other than interest, make money "now" more attractive than money "later." Examples include inflation and other sources of uncertainty.

- ◆ **Future Value of a Single Amount**---The **future value of a single amount** is the value at a future date of a given amount invested, assuming compound interest. Future value is usually expressed as:

$$FV = p \times (1 + i)^n$$

*FV* = future value of a single amount

*p* = principal (or present value)

*i* = interest rate for one period

*n* = number of periods

- The Future Value of 1 table is used for obtaining a factor which is multiplied by the principal to calculate the future value.
- Table 1 on page G-4 is such a table, showing factors with 5-digit decimals.

- ◆ **Future Value of an Annuity**---The future value of an annuity **is the sum of all the** payments (receipts) plus the accumulated compound interest on them. In computing the future value of an annuity, it is necessary to know the (1) interest rate, (2) the number of compounding periods, and (3) the amount of the periodic payments or receipts. When the periodic payments or receipts are **the same in each period**, the future value can be computed by using a future value of an annuity of 1 table.
  - Calculating the future value of each individual cash flow is required when the period payments or receipts are not equal in each period.
  - Table 2 on page G-6 shows the future value of 1 to be received periodically for a given number of periods.
  - This table assumes that each payment is made at the **end** of each period.

**TEACHING TIP**

Use the demonstration problem in the text to show students how to use Table 2.

## Learning Objective 2 – Compute present values.

- ◆ **Present Value Variables**---The **present value** is based on three variables: (1) the dollar amount to be received (future amount), (2) the length of time until the amount is received (number of periods), and (3) the interest rate (the discount rate).
  - Present value computations are used for principal and interest payments for determining the market price of bonds, as well as notes payable and lease liabilities.
- ◆ **Present Value of a Single Amount**---If the future amount to be received in  $n$  periods is discounted at interest rate  $i$ , then the computation of a single amount to be invested is calculated as:

$$PV = FV \div (1 + i)^n$$

$PV$  = present value

$FV$  = future value

$i$  = interest rate

$n$  = number of periods

- The present value of 1 may also be determined through tables that show the present value of 1 for  $n$  periods.
- Table 3 on page G-8 is used to find the present value of a single amount.

♦ **Present Value of an Annuity---In computing the present value of an annuity, it is necessary**

to know (1) the discount rate, (2) the number of discount periods, and (3) the amount of the periodic receipts or payments. When the future receipts are the same in each period, there are two ways to compute the present value. First, the annual cash flow can be multiplied by the sum of the three present value factors. Second, annuity tables may be used.

- Discounting may also be done over shorter periods of time such as monthly, quarterly, or semiannually.
- When the time frame is less than one year, it is necessary, to convert the annual interest rate to the applicable time frame.
- Table 4 on page G-10 is used to find the present value of an annuity.

**TEACHING TIP**

Ask students to give examples of annuities. Examples may include:

1. Auto loan payments
2. Mortgage payments
3. Student loan payments
4. Insurance premiums

♦ **Computing the Present Value of a Long-Term Note or Bond---**The present value (or market price) of a long-term note or bond is a function of three variables: (1) the payment amounts, (2) the length of time until the amounts are paid, and (3) the discount rate.

- The first variable (dollars to be paid) is made up of two elements: (1) a series of interest payments (an annuity) and (2) the principal amount (a single sum). To compute the present value of the bond, both the interest payments and the principal amount must be discounted—two different computations.
- When the investor's market rate is equal to the bond's contractual interest rate, the present value of the bonds will equal the face value of the bonds.

**TEACHING TIP**

Use a typical state lottery as another example of time value of money. The cash value in most state lotteries is typically half the face value. Ask students what they would pick: the cash value or annual payments. Use this topic to emphasize the importance of the interest rate associated with the annual payment option.

### Learning Objective 3 – Use a Financial Calculator To Solve Time Value of Money Problems.

- ◆ **Using Financial Calculators**---Once an understanding of the basic time value of money concepts is gained, many professionals use financial calculators to solve the computations.
  - The most common keys used for solving time value of money problems with a financial calculator include:
    - N = number of periods
    - I = interest rate per period (some calculators use I/YR or i)
    - PV = present value (occurs at the beginning of the first period)
    - PMT = payment (all payments are equal, and none are skipped)
    - FV = future value (occurs at the end of the last period)
  - Most problems give three of four variables and require solving for the remaining variable. The fifth key (the key not used) is given a value of zero to ensure that this variable is not used in the computation.
  - Financial calculators are particularly useful where interest rates and compounding periods are not presented in tables.

#### TEACHING TIP

- ◆ Emphasis to the students that it is important to read the owner's manual, since financial calculators differ.
  - However, there are several general steps when solving time value of money problems:
    1. Clear the calculator.
    2. Input the known value.
    3. Input the number of compounding periods per year.
    4. Input the annual interest rate.
    5. Input the total number of compounding periods.
    6. Request the unknown.
- ◆ Remember that problems with cash outflows require inputs with minus signs.

# CHAPTER 1

## Introduction to Financial Statements

### Learning Objectives

1. Identify the forms of business organization and the uses of accounting information.
2. Explain the three principle types of business activity.
3. Describe the four financial statements and how they are prepared.
- \*4. Describe the impact of international accounting standards on U.S. financial reporting.

# Chapter Outline

## Learning Objective 1 – Identify the Forms of Business Organization and the Uses of Accounting Information.

A business may be organized as a **sole proprietorship**, **partnership**, or **corporation**.

- ♦ **Sole proprietorship** - a business owned by one person (Examples include hair salons, auto repair shops, and free-lance editors)
  - Advantages
    - simple to establish
    - owner controlled
    - tax advantages that are more favorable than a corporation
  - Disadvantages
    - proprietor personally liable for all business debts
    - financing may be difficult
    - transfer of ownership may be difficult
- ♦ **Partnership** - a business owned by two or more people (Examples include retail and service type businesses including professional practices (lawyers, doctors, etc.)
  - Advantages
    - simple to establish
    - shared control
    - broader skills and resources
    - tax advantages that are more favorable than a corporation
  - Disadvantages
    - partners personally liable for all business debts
    - transfer of ownership may be difficult
- ♦ **Corporation** - a separate legal entity owned by stockholders (Examples include Coca-Cola, Exxon-Mobil, General Motors, Citigroup, and Microsoft)
  - Advantages
    - easier to transfer ownership
    - easier to raise funds
    - no personal liability for stockholders
  - Disadvantages
    - unfavorable tax treatment resulting in higher taxes paid by stockholders

The emphasis of this text is the corporate form of business.

### TEACHING TIP

There is a passage in the text that states, “The combined number of proprietorships and partnerships in the United States is more than five times the number of corporations. However, the revenue produced by corporations is eight times greater. Most of the largest enterprises in the United States—for example, Coca-Cola, ExxonMobil, General Motors, Citigroup, and Microsoft—are corporations.” Why do you think this is true?

### TEACHING TIP

There are hybrid business forms which combine the tax advantages of partnerships with the limited personal liability of stockholders. The most common of these types are limited liability companies (LLCs) and subchapter S corporations.

The purpose of financial information is to provide inputs for decision making.

**Accounting** is the information system that identifies, records, and communicates the economic events of an organization to interested users.

The users of accounting information fall into two groups—**internal users** and **external users**.

- ♦ **Internal users** - users within the organization. Internal users and questions they may ask:

|                 |                                                                   |
|-----------------|-------------------------------------------------------------------|
| Marketing       | What price will maximize the company's net income?                |
| Human Resources | Can we afford to give employees pay raises this year?             |
| Finance         | Is cash sufficient to pay dividends to stockholders?              |
| Management      | Which product line is most profitable? What should be eliminated? |

- ♦ **External users** - users who are outside the organization. External users and questions they may ask:

|                                        |                                                                                                                                                                                                                          |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Investors (current and potential)      | Is the company earning satisfactory income?<br>How does the company compare in size and profitability with competitors? Should I buy, sell, or hold this stock?                                                          |
| Creditors (suppliers and bankers)      | Will the company be able to pay its debts as they come due? How risky is this company?                                                                                                                                   |
| IRS, SEC, FTC, labor unions, customers | Is the company complying with rules and regulations?<br>Is the company properly paying its taxes? Can the company afford to pay increased wage and salaries?<br>Will the company be able to stand behind its warranties? |

- ◆ **Ethics in financial reporting** (How would you like to do business or invest in a business if you couldn't trust their financial statements?)
  - In 2002, Congress passed the Sarbanes-Oxley Act (SOX) to reduce unethical corporate behavior and decrease the likelihood of future corporate scandals. As a result of SOX:
    - Top management must now certify the accuracy of financial information
    - The penalties for fraudulent financial activity are much more severe
    - There is now increased independence of the outside auditor who review the accuracy of corporate financial statements
    - Increased the oversight role of boards of directors
  - Effective financial reporting depends on sound ethical behavior.
  - Steps for solving ethical dilemmas:
    1. Recognize an ethical situation and the ethical issues involved.
    2. Identify and analyze the principal elements in the situation.
    3. Identify the alternatives, and weigh the impact of each alternative on various stakeholders.

#### TEACHING TIP

Ask students to assume they are managers of XYZ Corp., and consider possible questions they might have that could be answered using financial information. Next, ask them to assume they are creditors or potential investors and think of questions they might have that could be answered using financial information.

### Learning Objective 2 - Explain the Three Principal Types of Business Activity.

All businesses are involved in three types of activity. The accounting information system keeps track of the results of each of these activities.

- ◆ **Financing activities** – Cash is often obtained from outside sources to start or expand a business. The two primary sources are:
  - Borrowing from **creditors** which creates **liabilities**
    - bank loan (note payable)
    - debt securities (bonds payable)
    - goods on credit from suppliers (accounts payable)
  - Issuing ownership interests in the corporation to investors (**selling common stock to shareholders**)
  - In addition, financing activities include using cash to **pay dividends** to stockholders.

### TEACHING TIP

At this point, ask students to assume they have extra money to invest and ask them how they would prefer to invest the money. Would they consider loaning money to a corporation or would they rather buy shares of stock in the company? Then ask students why they made the decision to lend or buy.

- ♦ **Investing activities** – Cash raised through financing activities is used for investing in resources (**assets**) needed to operate the business (i.e., **land, buildings, delivery trucks, equipment, computers, furniture**, etc.).
- ♦ **Operating activities** – Once a business has the assets it needs to get started, it begins its operations. Operating activities involve revenue and expenses.
  - **Revenue** is the increase in assets resulting from the **sale of goods or the performance of services** – Sources of revenue common to many businesses are **sales revenue, service revenue, and interest revenue**. Assets that result from operating activities include **supplies, inventory, and accounts receivable**.
  - **Expenses** are the cost of assets consumed or services used in generating **revenues** – Expenses take their name from the type of asset consumed or service used. **Cost of goods sold, selling expenses, marketing expenses, administrative expenses, interest expense, and income taxes** are common types of expenses. The related liabilities created include **accounts payable, wages payable, interest payable, sales taxes payable, and income taxes payable**

### TEACHING TIP

Stress the fact that just because a business is making money is no reason to assume that the business has a lot of money in the bank. Focus students' attention on the three types of business activity and let them think about what could have happened to the money the business has made. You might also ask students how a business reporting a net loss could have money in the bank.

### TEACHING TIP

Ask students to think about some of the 'dotcom' businesses. Many of these companies received large amounts of cash from stockholders and creditors (financing activities). The cash was spent on salaries, advertising, entertainment, equipment and other expenses and assets (investing and operating activities). Unfortunately, many of these businesses were unable to generate sufficient revenues. When the cash ran out, many of the businesses went under. Many shareholders lost their investments and many creditors were unable to collect on debts.

## Learning Objective 3 - Describe the Four Financial Statements and how They are Prepared.

Accounting information is communicated through four different **financial statements**:

- ♦ **Income Statement**
  - Reports the success or failure of the company's operations for a period of time.

- Summarizes all **revenue** and **expenses** for period—month, quarter, or year.
- If **revenues** exceed **expenses**, the result is a **net income**. If **expenses** exceed **revenue**, the result is a (**net loss**).
  - Dividends are payments to the stockholders and are not expenses.
  - Amounts received from issuing stock or obtaining loans are not revenues.

#### ◆ Retained Earnings Statement

- Reports the amount paid out in dividends and the amount of net income or net loss for a specific period of time.
- Shows changes in the **retained earnings** balance during period covered by statement.
- Ending retained earnings represents net income since the inception of the business that has not been paid out as dividends.

#### ◆ Balance Sheet

- Shows the relationship between **assets** and claims on assets which include **liabilities** (claims of the creditors) and **stockholders' equity** (claims of the owners) at a specific point in time.
- Assets and claims (**liabilities** and **stockholders' equity**) must balance.
- The **basic accounting equation**; Assets = Liabilities + Stockholders' Equity. The accounting equation is just that. It is an equation. The components can be moved in the same way the components of an algebraic equation can be moved.
- **Assets** - resources owned by the business (things of value)

#### TEACHING TIP

Give examples of assets (i.e. cash, accounts receivable, inventories, furniture and fixtures, and equipment. Explain the difference between accounts receivable and notes receivable.

#### TEACHING TIP

Explain that assets do not have to be fully paid for. Many students do not want to record assets if there is a related liability. They do not understand that a company owns an asset even if it has been financed.

#### TEACHING TIP

Discuss the concept that assets are the resources that are used by the firm to create more money than what was paid for the assets. Liabilities and stockholders' equity is how the assets were acquired by the business.

- **Liabilities** - **creditors** claims on total **assets** (obligations or debts of the business)

### TEACHING TIP

The difference between accounts payable and notes payable should be made clear.

- **Stockholders' Equity** - ownership claim on total **assets**

### TEACHING TIP

Students need to understand the difference between paid-in capital and retained earnings.

#### ◆ **Statement of Cash Flows**

- Provides information about cash receipts and cash payments for a specific period of time.
- Reports the cash effects of a company's operations for a period of time.
- Shows cash increases and decreases from investing and financing activities.
- Indicates the increase or decrease in cash as well as the ending cash balance.
- Provides answers to three important questions:
  - Where did the cash come from during the period?
  - How was cash used during the period?
  - What was the change in the cash balance during the period?

#### ◆ **Interrelationship of Statements**

- Retained earnings statement uses the results of the income statement.
- Balance sheet and retained earnings statement are also interrelated. The retained earnings amount on the balance sheet is the ending amount on the retained earnings statement.
- Statement of cash flows relates to balance sheet information. It shows how the Cash account changed during the period.

### TEACHING TIP

Ask students to prepare a personal income statement, balance sheet, and/or statement of cash flows. This activity allows them to relate to the text material. They may be encouraged to pay closer attention to their uses of cash and timing and amounts of expenditures.

Publicly traded U.S. Companies that are must provide shareholders with an **annual report** which always includes **financial statements**. In addition, the annual report includes the following information:

#### ◆ **Management Discussion and Analysis** - covers three aspects of a company:

- Its ability to pay near-term obligations
- Its ability to fund operations and expansion
- Its results of operations

◆ **Notes to the Financial Statements**

- Clarify information presented in the financial statements
- Provide additional detail (i.e. Describe accounting policies or explain uncertainties and contingencies)

◆ **Auditor's Report**

- An auditor, a CPA, conducts an independent examination of the company's financial statements.
- The auditor gives an opinion if the financial statements provide a fair representation of the firm's financial position and results of operations in accordance with generally accepted accounting principles. If they do, the auditor expresses an **unqualified opinion**.
- If the auditor doesn't express an unqualified opinion, users of the financial statements are skeptical that the statements give an accurate picture of the firm's financial health.

**TEACHING TIP**

Encourage students to obtain annual report information from web sites. Explain to them that many companies are omitting the financial statements and notes from their annual reports on their web sites. The financial statements and notes can be obtained from the SEC filings.

# IFRS

## ◆ A Look at IFRS

### **\*Learning Objective 4 – Describe the impact of international accounting standards on U.S. financial reporting.**

Most agree that there is a need for one set of international accounting standards. Here is why:

**Multinational corporations.** Today's companies view the entire world as their market. For example, Coca-Cola, Intel, and McDonald's generate more than 50% of their sales outside the United States, and many foreign companies, such as Toyota, Nestle, and Sony, find their largest market to be the United States.

**Mergers and acquisitions.** The mergers between Fiat/Chrysler and Vodafone/Mannesmann suggest that we will see even more such business combinations in the future.

**Information technology.** As communication barriers continue to topple through advances in technology, companies and individuals in different countries and markets are becoming more comfortable buying and selling goods and services from one another.

**Financial markets.** Financial markets are of international significance today. Whether it is currency, equity securities (stocks), bonds, or derivatives, there are active markets throughout the world trading these types of instruments.

## ◆ KEY POINTS

Following are the key similarities and differences between GAAP and IFRS as related to accounting fundamentals.

### **Similarities**

- The basic techniques for recording business transactions are the same for the U.S. and international companies.
- Both international and U.S. accounting standards emphasize transparency in financial reporting. Both sets of standards are primarily driven by meeting the needs of investors and creditors.
- The three most common forms of business organizations, proprietorships, partnerships, and corporations, are also found in countries that use international accounting standards.

### **Differences**

- International standards are referred to as International Financial Reporting Standards (IFRS), developed by the International accounting Standards Board. Accounting standards in the United States are referred to as generally accepted

accounting principles (GAAP) and are developed by the Financial Accounting Standards Board .

- IFRS tends to be simpler in its accounting and disclosure requirements; some people say it is more “principles-based”. GAAP is more detailed; some people say it is more “rules-based”.
- The internal control standards applicable to Sarbanes-Oxley (SOX) apply only to large public companies listed on U.S. exchanges. There is continuing debate as to whether non-U.S. companies should have to comply with this extra layer of regulation.

## ◆ LOOKING TO THE FUTURE

Both the IASB and the FASB are hard at work developing standards that will lead to the elimination of major differences in the way certain transactions are accounted for and reported.

## Chapter 1 Review

- ✓ Describe the three primary forms of business organization and list advantages and disadvantages of each.
- ✓ Identify the users of accounting information. How do they use this information?
- ✓ Explain the three types of business activity.
- ✓ Describe the content and purpose of each of the financial statements.
- ✓ Define assets, liabilities, and stockholders' equity, and state the basic accounting equation.
- ✓ Describe the components that supplement the financial statements in an annual report.

**Chapter 1**

---

- \_\_\_\_\_ 1. The process of identifying, recording, and communicating the economic events of a business to interested users of the information.
- \_\_\_\_\_ 2. Debts and obligations of a business.
- \_\_\_\_\_ 3. Resources owned by a business.
- \_\_\_\_\_ 4. The amount by which expenses exceed revenues.
- \_\_\_\_\_ 5. A business organized as a separate legal entity having ownership divided into transferable shares of stock.
- \_\_\_\_\_ 6. The amount of net income kept in the corporation for future use, not distributed to stockholders as dividends.
- \_\_\_\_\_ 7.  $\text{Assets} = \text{Liabilities} + \text{Stockholders' Equity}$ .
- \_\_\_\_\_ 8. Payments of cash from a corporation to its stockholders.
- \_\_\_\_\_ 9. The cost of assets consumed or services used in the process of ongoing operations to generate resources.
- \_\_\_\_\_ 10. A financial statement that reports the assets, liabilities, and stockholders' equity at a specific date.

## Solutions to Vocabulary Quiz

### Chapter 1

---

1. Accounting
2. Liabilities
3. Assets
4. Net loss
5. Corporation
6. Retained earnings
7. Accounting equation
8. Dividends
9. Expenses
10. Balance sheet

**Chapter 1**

---

1. All of the following are characteristics of a sole proprietorship **except**:
  - a. a business owned by one person.
  - b. owner has control of the business.
  - c. a separate legal entity.
  - d. small owner-operated business.
2. All of the following are characteristics of a corporation **except**:
  - a. a separate legal entity.
  - b. ownership evidenced by shares of stock.
  - c. produce eight times more revenue than sole proprietorships and partnerships in the United States.
  - d. owners have unlimited liability.
3. The term used to describe the stock representing the primary ownership interest in a corporation is:
  - a. common stock.
  - b. retained earnings.
  - c. financing activity.
  - d. dividends.
4. Resources owned by a business and used in carrying out its operating activities are:
  - a. liabilities.
  - b. stockholders' equity.
  - c. revenues.
  - d. assets.
5. Acquiring assets necessary to operate the business is called a(n):
  - a. financing activity.
  - b. operating activity.
  - c. revenue activity.
  - d. investing activity.
6. Debt securities sold to investors and due to be repaid at a particular date some years in the future are called:
  - a. bonds payable.
  - b. accounts payable.
  - c. wages payable.
  - d. notes payable.

7. The term used to describe the total assets that Starbucks receives in exchange for its coffee is:
  - a. cash.
  - b. revenue.
  - c. inventory.
  - d. accounts receivable.
8. The financial statement which presents a picture on a particular date of what a business owns and owes is a(n):
  - a. income statement.
  - b. retained earnings statement.
  - c. balance sheet.
  - d. statement of cash flows.
9. Net income shown on the income statement is added to the beginning balance of retained earnings in the:
  - a. income statement.
  - b. retained earnings statement.
  - c. balance sheet.
  - d. statement of cash flows.
10. To report the success or failure of the company's operations during the period is the purpose of the:
  - a. income statement.
  - b. retained earnings statement.
  - c. balance sheet.
  - d. statement of cash flows.

## Solutions to Multiple Choice Quiz

### Chapter 1

---

1. c
2. d
3. a
4. d
5. d
6. a
7. b
8. c
9. b
10. a

## Exercise 1 - Research and Communication Activity

### Chapter 1

---

You and your college roommate have decided to go into business together after graduation. Your roommate contends that you have always gotten along and therefore do not need a partnership agreement. You, however, feel somewhat uncomfortable about not having a formal partnership agreement. Not wanting to argue, you decide to write your roommate a memo to (1) explain why you need a formal agreement and (2) outline the issues that need to be addressed in the agreement.

#### Solution:

**DATE:** 5/1/0X  
**TO:** My Roommate  
**FROM:** Marketing Student  
**SUBJECT:** Partnership Agreement

After conducting research, speaking with a number of professionals, and considering the venture we are about to undertake, I am even more confident that we need a partnership agreement. Although we have remained friends during the four years of college, a misunderstanding concerning the partnership could jeopardize our friendship.

At a minimum, the partnership agreement should address:

- Exact name of the business
- Specific nature of the venture
- Names and addresses of partners
- Duties and responsibilities of partners
- Division of profits or losses
- Addition of new partners
- Withdrawal of existing partner
- Additional investments

If there are other issues you would like to see addressed, please let me know. I am excited about our new business undertaking. However, I am more concerned that our friendship stays intact.

## Exercise 2 - Research and Communication Activity

### Chapter 1

---

In your textbook you will find a passage that reads, “The combined number of proprietorships and partnerships in the United States is more than five times the number of corporations. However, the revenue produced by corporations is eight times greater. Most of the largest enterprises in the United States—for example Coca-Cola, ExxonMobil, General Motors, Citigroup, and Microsoft—are corporations.

Given these facts, chances are that at some point in your life you may work for a corporation or want to form a corporation.

1. List the advantages of the corporate form of organization.
2. Search the web or call the Secretary of State in your state to determine how you would go about forming a corporation in your state. Outline the major steps in forming a corporation. Provide the source of your information.

#### **Solution:**

1. **Easy transfer of ownership, greater raising capital potential, and lower personal liability.**
2. **In the Commonwealth of Kentucky, one or more persons may act as an incorporator or incorporators of a corporation by delivering articles of incorporation to the Secretary of State for filing.**

**The articles of incorporation of a business corporation must set forth:**

- a. **The name of the corporation that satisfies the requirements of the Commonwealth of Kentucky;**
- b. **The number of shares the corporation is authorized to issue;**
- c. **The street address of the corporation’s initial registered office and the name of its initial registered agent at that office;**
- d. **The mailing address of the corporation’s principal office; and**
- e. **The name and mailing address of each incorporator.**

**The articles of incorporation may set forth:**

- a. **The names and mailing addresses of the individuals who will serve as the initial directors.**
- b. **Other provisions not inconsistent with the laws of the Commonwealth of Kentucky.**

## Exercise 3 – Financial Statement and Creative Activity

### Chapter 1

---

Assume that you own a business (small or large) in Campus Town USA. Assume further that you are considering a project (enlarging the parking lot, redecorating the interior, etc.) that will require you to borrow money from a local bank. The lending officer has told you that she will need to know how much money the business is making, how much money the business owes suppliers and other creditors, and how much cash and inventory you have on hand.

As part of your exercise, you are required to do the following:

1. Complete the form on the next page outlining:
  - a. The type of business you own.
  - b. The amount of money you need to borrow.
  - c. The detail of the project that will require you to borrow money.
  - d. Any additional information you think would help in applying for the loan.
  
2. Complete the attached loan application form for your fictitious business. Remember: You may be creative on this exercise. The numbers don't have to be real, just realistic.

Note: The attached form and loan application do not need to be typed. However, forms should be neatly handwritten.

**(This activity is intended for group assignment. Also, you may want to retain students' work. After studying later chapters and learning to analyze financial statements, students can play the role of loan officer and determine whether to grant the loan.)**

## Exercise 3 - Financial Statement and Creative Activity (Continued)

### Chapter 1

---

Name of Company

---

Type of Business

---

---

Amount Need to Borrow

---

Reason for Applying for the Loan

---

---

---

---

---

---

---

---

---

---

---

## Exercise 3 - Financial Statement and Creative Activity (Continued)

### Chapter 1

---

---

#### LOAN APPLICATION FORM

Name of Company \_\_\_\_\_

Address \_\_\_\_\_

Phone Number \_\_\_\_\_

---

#### Annual Income

Revenues

Cost of goods sold

Operating expenses

Rent

Utilities

Wages

Advertising

Others

Net income (loss)

---

---

#### Assets

Cash

Account receivable

Inventory

Property, plant, & equipment

Other

Total assets

---

---

#### Liabilities

Account payable

Notes payable

Other

Total liabilities

---

---

#### Stockholders' Equity

Total stockholders' equity

Total liabilities & stockholders' equity

---

## Exercise 4 - World Wide Web Accounting Research Activity

### Chapter 1

---

The authors provide a vignette that focuses on Columbia Sportswear in chapter 1 of your text book. Learn more about Columbia Sportswear by going to [www.columbiasportswear.com](http://www.columbiasportswear.com), then click on **Investor Relations**. Open the latest annual report and find these answers.

1. Outline Columbia's Corporate Principles.
2. What was the total amount of Columbia's assets in the most current year available?
3. What was the total amount of Columbia's liabilities in the most current year available?
4. What is the amount of the difference between Columbia's assets and liabilities? What is this difference called?

**Solutions: Information available on website**

**Note: The website is constantly being updated. Please check to see that the information requested in this exercise is available.**

## Exercise 5 - World Wide Web, International, and Social Responsibility Activity

### Chapter 1

---

Levi-Strauss, an international company with headquarters in San Francisco, was a forerunner in addressing ethical and social responsibility. You can find more about Levi-Strauss' core values by visiting its website at [www.levistrauss.com](http://www.levistrauss.com).

1. Outline the four core values that are at the heart of Levi Strauss & Co.

## **Solutions:**

### **Information available on website**

**Note:** The website is constantly being updated. Please check to see that the information requested in this exercise is available.



WILEY

---

# Time Value of Money

Kimmel • Weygandt • Kieso  
Accounting, Sixth Edition

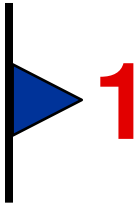
# APPENDIX OUTLINE

## LEARNING OBJECTIVES

**1** | Compute interest and future values.

**2** | Compute present values.

**3** | Use a financial calculator to solve time value of money problems.



## **Compute interest and future values.**

### **Time Value of Money**

Would you rather receive \$1,000 today or in a year from now?

**Today!** “Interest Factor”

# NATURE OF INTEREST

---

- ◆ Payment for the use of money.
- ◆ Difference between amount borrowed or invested (**principal**) and amount repaid or collected.

## Elements involved in financing transaction:

1. **Principal ( $p$ ):** Amount borrowed or invested.
2. **Interest Rate ( $i$ ):** An annual percentage.
3. **Time ( $n$ ):** Number of years or portion of a year that the principal is borrowed or invested.

# NATURE OF INTEREST

---

## Simple Interest

- ◆ Interest computed on the principal only.

**Illustration:** Assume you borrow \$5,000 for 2 years at a simple interest rate of 12% annually. Calculate the annual interest cost.

**ILLUSTRATION G-1**  
Interest computations

**2 FULL  
YEARS**

$$\begin{aligned}\text{Interest} &= p \times i \times n \\ &= \$5,000 \times .12 \times 2 \\ &= \$1,200\end{aligned}$$

# NATURE OF INTEREST

---

## Compound Interest

- ◆ Computes interest on
  - ▶ the **principal** and
  - ▶ any **interest earned** that has not been paid or withdrawn.
- ◆ Most business situations use compound interest.

# Compound Interest

**Illustration:** Assume that you deposit \$1,000 in Bank Two, where it will earn simple interest of 9% per year, and you deposit another \$1,000 in Citizens Bank, where it will earn compound interest of 9% per year compounded annually. Also assume that in both cases you will not withdraw any interest until three years from the date of deposit.

**ILLUSTRATION G-2**  
Simple versus compound interest

| Bank Two                       |                  |                              | Citizens Bank                  |                   |                              |
|--------------------------------|------------------|------------------------------|--------------------------------|-------------------|------------------------------|
| Simple Interest Calculation    | Simple Interest  | Accumulated Year-end Balance | Compound Interest Calculation  | Compound Interest | Accumulated Year-end Balance |
| Year 1 $\$1,000.00 \times 9\%$ | \$ 90.00         | \$1,090.00                   | Year 1 $\$1,000.00 \times 9\%$ | \$ 90.00          | \$ 1,090.00                  |
| Year 2 $\$1,000.00 \times 9\%$ | 90.00            | \$1,180.00                   | Year 2 $\$1,090.00 \times 9\%$ | \$ 98.10          | \$ 1,188.10                  |
| Year 3 $\$1,000.00 \times 9\%$ | 90.00            | \$1,270.00                   | Year 3 $\$1,188.10 \times 9\%$ | \$106.93          | \$ 1,295.03                  |
|                                | <u>\$ 270.00</u> |                              |                                | <u>\$ 295.03</u>  |                              |
|                                |                  |                              |                                |                   |                              |
|                                |                  | \$25.03 Difference           |                                |                   |                              |

# FUTURE VALUE OF A SINGLE AMOUNT

---

**Future value of a single amount** is the value at a future date of a given amount invested, assuming compound interest.

$$FV = p \times (1 + i)^n$$

**ILLUSTRATION G-3**

Formula for future value

***FV*** = future value of a single amount

***p*** = principal (or present value; the value today)

***i*** = interest rate for one period

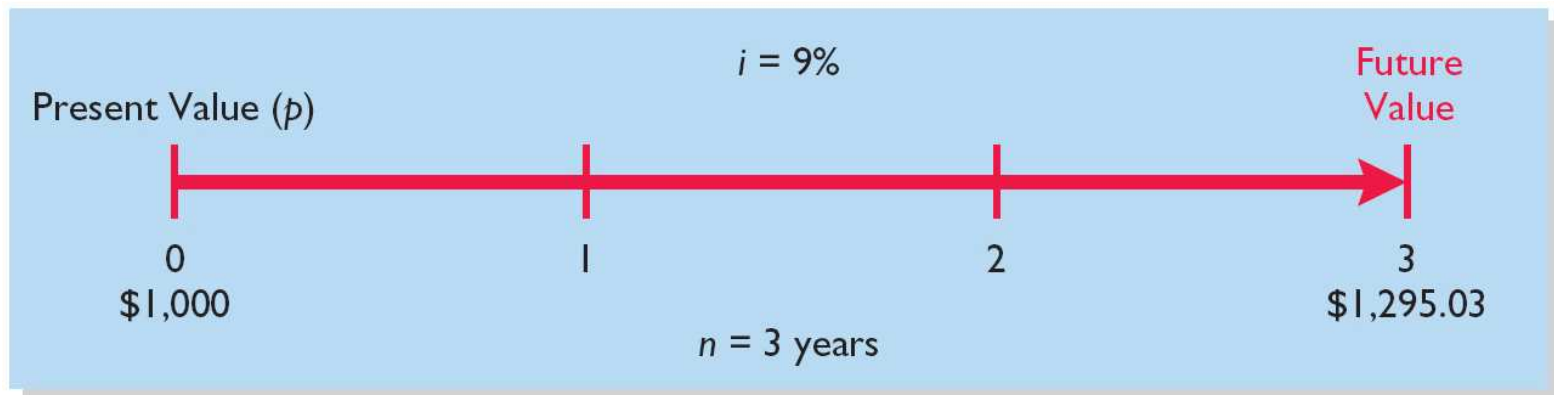
***n*** = number of periods

# FUTURE VALUE OF A SINGLE AMOUNT

**Illustration:** If you want a 9% rate of return, you would compute the future value of a \$1,000 investment for three years as follows:

$$\begin{aligned} FV &= p \times (1 + i)^n \\ &= \$1,000 \times (1 + .09)^3 \\ &= \$1,000 \times 1.29503 \\ &= \$1,295.03 \end{aligned}$$

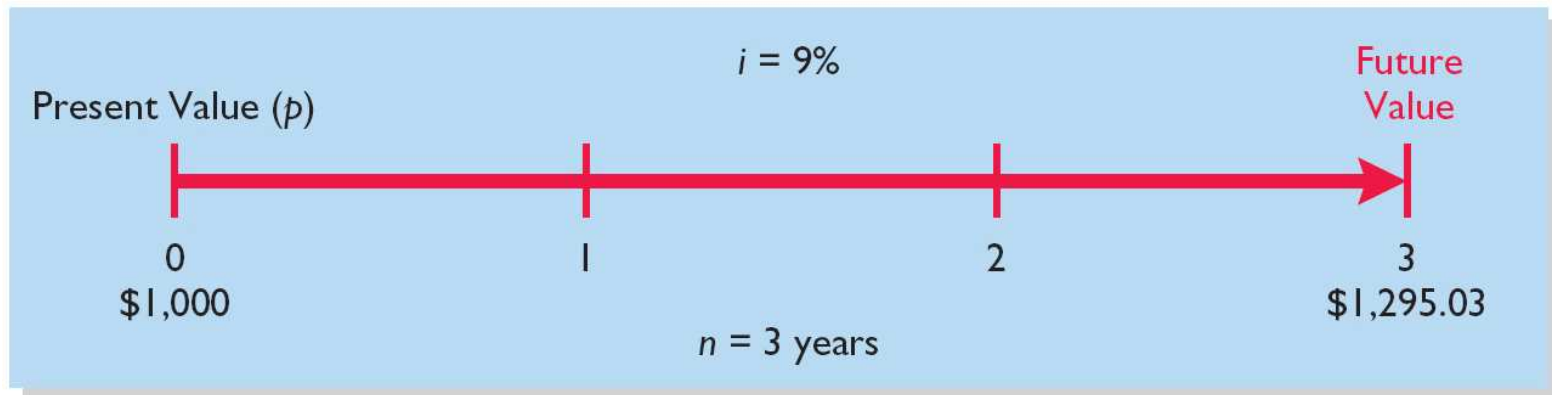
ILLUSTRATION G-4  
Time diagram



# FUTURE VALUE OF A SINGLE AMOUNT

**Illustration:** If you want a 9% rate of return, you would compute the future value of a \$1,000 investment for three years as follows:

ILLUSTRATION G-4  
Time diagram



**What table do we use?**

**Alternate Method**

# FUTURE VALUE OF A SINGLE AMOUNT

TABLE 1 Future Value of 1

| <b>(n)</b><br><b>Periods</b> | <b>4%</b> | <b>5%</b> | <b>6%</b> | <b>8%</b> | <b>9%</b> | <b>10%</b> | <b>11%</b> |
|------------------------------|-----------|-----------|-----------|-----------|-----------|------------|------------|
| 0                            | 1.00000   | 1.00000   | 1.00000   | 1.00000   | 1.00000   | 1.00000    | 1.00000    |
| 1                            | 1.04000   | 1.05000   | 1.06000   | 1.08000   | 1.09000   | 1.10000    | 1.11000    |
| 2                            | 1.08160   | 1.10250   | 1.12360   | 1.16640   | 1.18810   | 1.21000    | 1.23210    |
| 3                            | 1.12486   | 1.15763   | 1.19102   | 1.25971   | 1.29503   | 1.33100    | 1.36763    |
| 4                            | 1.16986   | 1.21551   | 1.26248   | 1.36049   | 1.41158   | 1.46410    | 1.51807    |
| 5                            | 1.21665   | 1.27628   | 1.33823   | 1.46933   | 1.53862   | 1.61051    | 1.68506    |

**What factor do we use?**

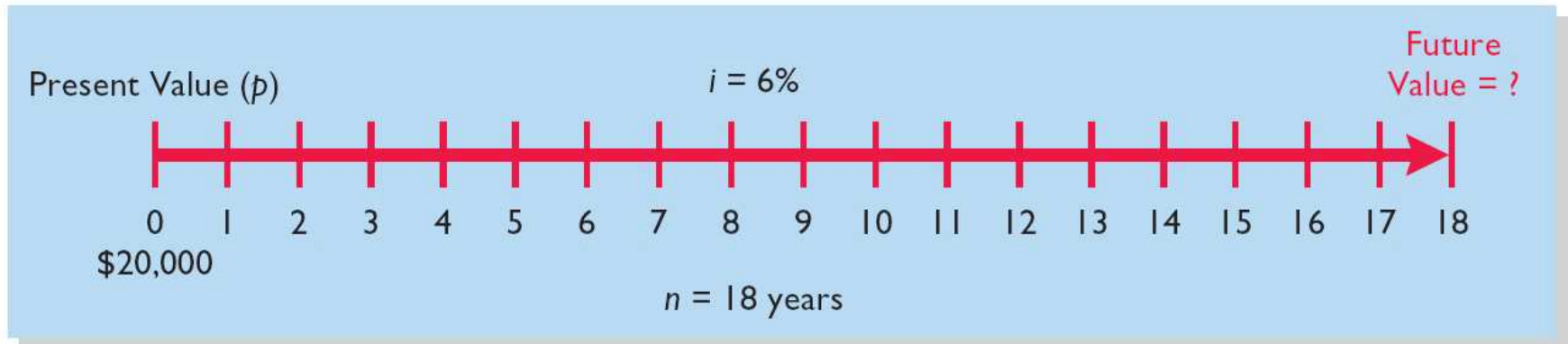
|                      |          |                |          |                     |
|----------------------|----------|----------------|----------|---------------------|
| <b>\$1,000</b>       | <b>x</b> | <b>1.29503</b> | <b>=</b> | <b>\$1,295.03</b>   |
| <b>Present Value</b> |          | <b>Factor</b>  |          | <b>Future Value</b> |

# FUTURE VALUE OF A SINGLE AMOUNT

## Illustration:

**ILLUSTRATION G-5**  
Demonstration problem—  
Using Table 1 for *FV* of 1

John and Mary Rich invested \$20,000 in a savings account paying 6% interest at the time their son, Mike, was born. The money is to be used by Mike for his college education. On his 18th birthday, Mike withdraws the money from his savings account. How much did Mike withdraw from his account?



**What table do we use?**

# FUTURE VALUE OF A SINGLE AMOUNT

TABLE 1 Future Value of 1

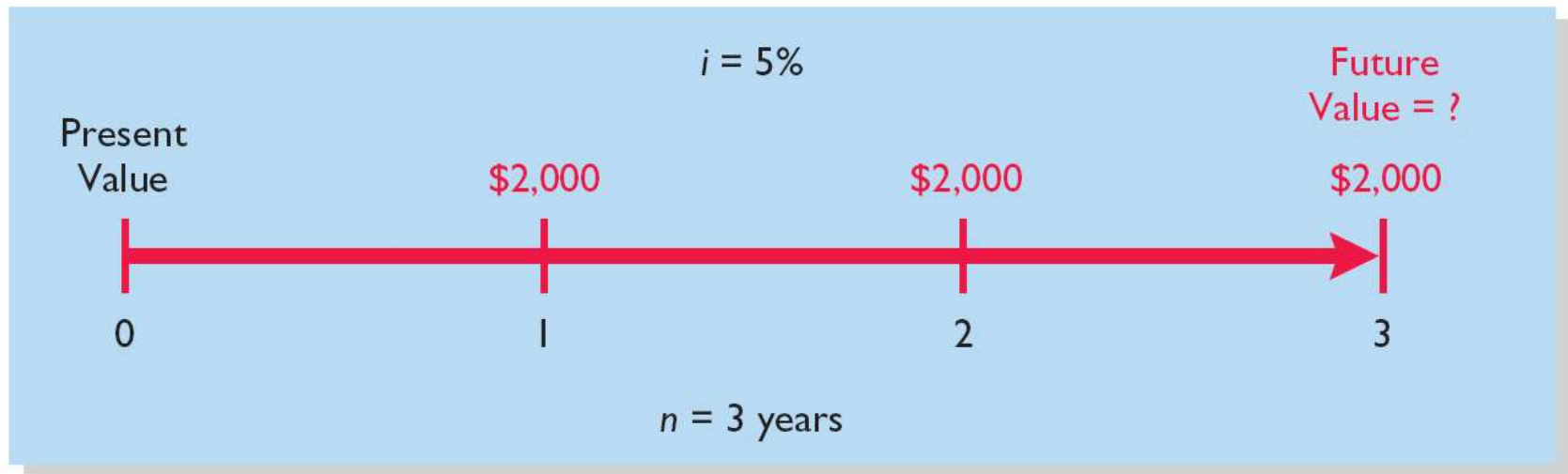
| (n)<br>Periods | 4%      | 5%      | 6%      | 8%      | 9%      | 10%     | 11%     |
|----------------|---------|---------|---------|---------|---------|---------|---------|
| 0              | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| 1              | 1.04000 | 1.05000 | 1.06000 | 1.08000 | 1.09000 | 1.10000 | 1.11000 |
| 2              | 1.08160 | 1.10250 | 1.12360 | 1.16640 | 1.18810 | 1.21000 | 1.23210 |
| 3              | 1.12486 | 1.15763 | 1.19102 | 1.25971 | 1.29503 | 1.33100 | 1.36763 |
| 4              | 1.16986 | 1.21551 | 1.26248 | 1.36049 | 1.41158 | 1.46410 | 1.51807 |
| 5              | 1.21665 | 1.27628 | 1.33823 | 1.46933 | 1.53862 | 1.61051 | 1.68506 |
|                | ↓       | ↓       | ↓       |         | ↓       |         | ↓       |
| 16             | 1.87298 | 2.18287 | 2.54035 | 3.42594 | 3.97031 | 4.59497 | 5.31089 |
| 17             | 1.94790 | 2.29202 | 2.69277 | 3.70002 | 4.32763 | 5.05447 | 5.89509 |
| 18             | 2.02582 | 2.40662 | 2.85434 | 3.99602 | 4.71712 | 5.55992 | 6.54355 |
| 19             | 2.10685 | 2.52695 | 3.02560 | 4.31570 | 5.14166 | 6.11591 | 7.26334 |
| 20             | 2.19112 | 2.65330 | 3.20714 | 4.66096 | 5.60441 | 6.72750 | 8.06231 |

$$\begin{array}{ccccc}
 \$20,000 & \times & 2.85434 & = & \$57,086.80 \\
 \text{Present Value} & & \text{Factor} & & \text{Future Value}
 \end{array}$$

# FUTURE VALUE OF AN ANNUITY

**Illustration:** Assume that you invest \$2,000 at the end of each year for three years at 5% interest compounded annually.

**ILLUSTRATION G-6**  
Time diagram for a three-year annuity



# FUTURE VALUE OF AN ANNUITY

**Illustration:**

**Invest = \$2,000**

**i = 5%**

**n = 3 years**

**TABLE 1 Future Value of 1**

| <b>(n)</b><br><b>Periods</b> | <b>4%</b> | <b>5%</b> | <b>6%</b> | <b>8%</b> |
|------------------------------|-----------|-----------|-----------|-----------|
| 0                            | 1.00000   | 1.00000   | 1.00000   | 1.00000   |
| 1                            | 1.04000   | 1.05000   | 1.06000   | 1.08000   |
| 2                            | 1.08160   | 1.10250   | 1.12360   | 1.16640   |
| 3                            | 1.12486   | 1.15763   | 1.19102   | 1.25971   |

| <b>Invested at<br/>End of<br/>Year</b> | <b>Number of<br/>Compounding<br/>Periods</b> | <b>Amount<br/>Invested</b> | <b>×</b> | <b>Future Value of<br/>1 Factor at 5%</b> | <b>=</b> | <b>Future<br/>Value</b> |
|----------------------------------------|----------------------------------------------|----------------------------|----------|-------------------------------------------|----------|-------------------------|
| 1                                      | 2                                            | \$2,000                    | ×        |                                           |          |                         |
| 2                                      | 1                                            | \$2,000                    | ×        |                                           |          |                         |
| 3                                      | 0                                            | \$2,000                    | ×        |                                           |          |                         |
|                                        |                                              |                            |          |                                           |          |                         |
|                                        |                                              |                            |          |                                           |          |                         |

**ILLUSTRATION G-7**

Future value of periodic payment computation

# FUTURE VALUE OF AN ANNUITY

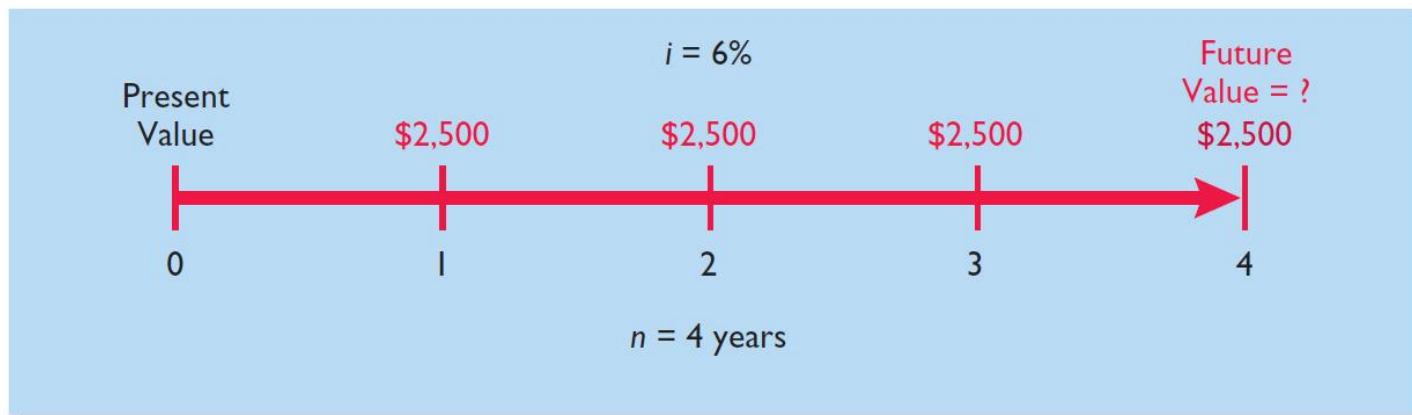
When the periodic payments (receipts) are the same in each period, the future value can be computed by using a future value of an annuity of 1 table.

## Illustration:

### ILLUSTRATION G-8

Demonstration problem—  
Using Table 2 for *FV* of an  
annuity of 1

John and Char Lewis' daughter, Debra, has just started high school. They decide to start a college fund for her and will invest \$2,500 in a savings account at the end of each year she is in high school (4 payments total). The account will earn 6% interest compounded annually. How much will be in the college fund at the time Debra graduates from high school?



# FUTURE VALUE OF AN ANNUITY

**TABLE 2** Future Value of an Annuity of 1

| <b>(n)</b><br><b>Periods</b> | <b>4%</b> | <b>5%</b> | <b>6%</b> | <b>8%</b> | <b>9%</b> | <b>10%</b> | <b>11%</b> |
|------------------------------|-----------|-----------|-----------|-----------|-----------|------------|------------|
| 1                            | 1.00000   | 1.00000   | 1.00000   | 1.00000   | 1.00000   | 1.00000    | 1.00000    |
| 2                            | 2.04000   | 2.05000   | 2.06000   | 2.08000   | 2.09000   | 2.10000    | 2.11000    |
| 3                            | 3.12160   | 3.15250   | 3.18360   | 3.24640   | 3.27810   | 3.31000    | 3.34210    |
| 4                            | 4.24646   | 4.31013   | 4.37462   | 4.50611   | 4.57313   | 4.64100    | 4.70973    |
| 5                            | 5.41632   | 5.52563   | 5.63709   | 5.86660   | 5.98471   | 6.10510    | 6.22780    |

**What factor do we use?**

|                |          |                |          |                     |
|----------------|----------|----------------|----------|---------------------|
| <b>\$2,500</b> | <b>x</b> | <b>4.37462</b> | <b>=</b> | <b>\$10,936.55</b>  |
| <b>Payment</b> |          | <b>Factor</b>  |          | <b>Future Value</b> |

## PRESENT VALUE VARIABLES

The **present value** is the value now of a given amount to be paid or received in the future, assuming compound interest.

Present value variables:

1. Dollar amount to be received (future amount).
2. Length of time until amount is received (number of periods).
3. Interest rate (the discount rate).

# PRESENT VALUE OF A SINGLE AMOUNT

---

## ILLUSTRATION G-9

Formula for present value

$$\text{Present Value (PV)} = \text{Future Value} \div (1 + i)^n$$

$p$  = principal (or present value)

$i$  = interest rate for one period

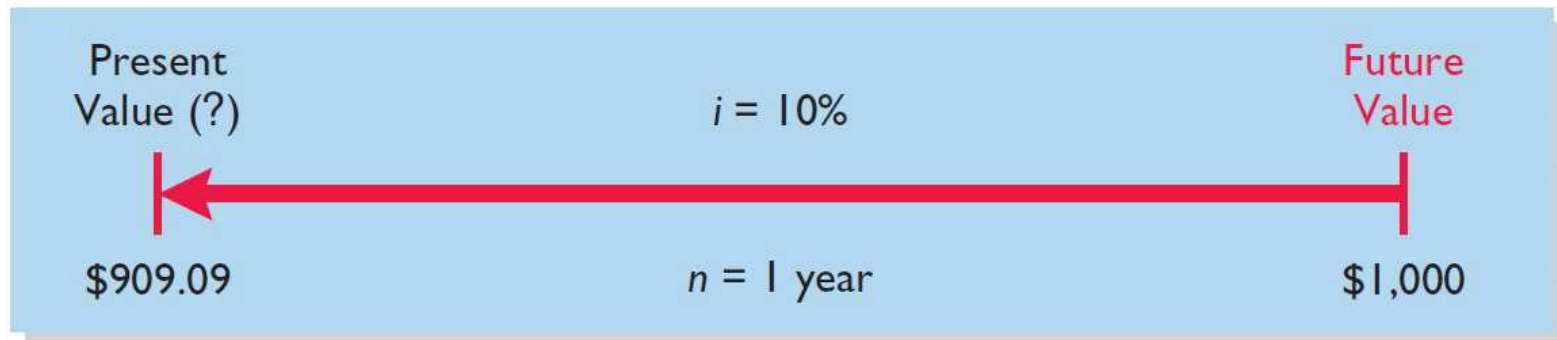
$n$  = number of periods

# PRESENT VALUE OF A SINGLE AMOUNT

**Illustration:** If you want a 10% rate of return, you would compute the present value of \$1,000 for one year as follows:

$$\begin{aligned} PV &= FV \div (1 + i)^n \\ &= \$1,000 \div (1 + .10)^1 \\ &= \$1,000 \div 1.10 \\ &= \$909.09 \end{aligned}$$

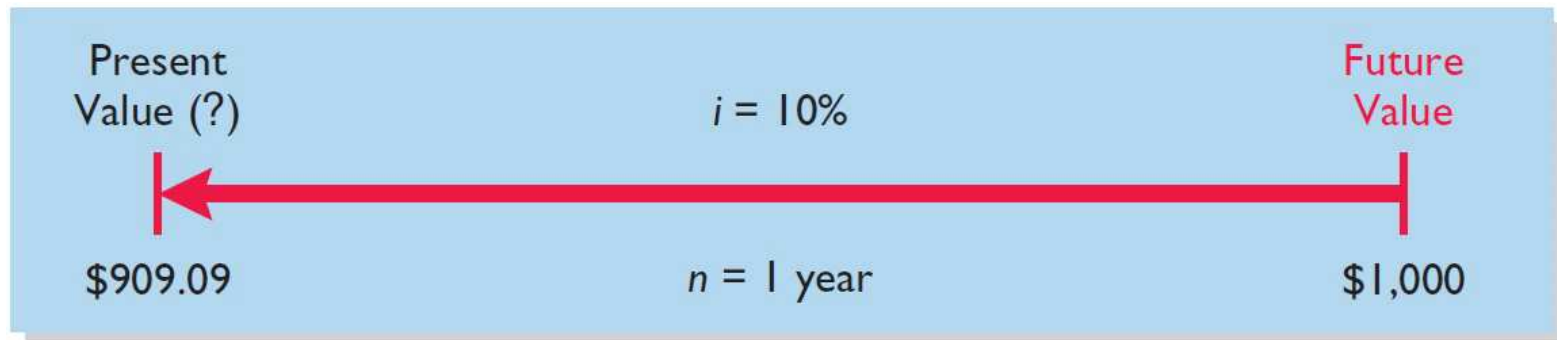
**ILLUSTRATION G-10**  
Finding present value if  
discounted for one period



# PRESENT VALUE OF A SINGLE AMOUNT

## ILLUSTRATION G-10

Finding present value if discounted for one period



**Illustration:** If you want a 10% rate of return, you can also compute the present value of \$1,000 for one year by using a present value table.

**What table do we use?**

# PRESENT VALUE OF A SINGLE AMOUNT

**TABLE 3 Present Value of 1**

| <b>(n)</b><br><b>Periods</b> | <b>4%</b> | <b>5%</b> | <b>6%</b> | <b>8%</b> | <b>9%</b> | <b>10%</b> | <b>11%</b> |
|------------------------------|-----------|-----------|-----------|-----------|-----------|------------|------------|
| 1                            | .96154    | .95238    | .94340    | .92593    | .91743    | .90909     | .90090     |
| 2                            | .92456    | .90703    | .89000    | .85734    | .84168    | .82645     | .81162     |
| 3                            | .88900    | .86384    | .83962    | .79383    | .77218    | .75132     | .73119     |
| 4                            | .85480    | .82270    | .79209    | .73503    | .70843    | .68301     | .65873     |
| 5                            | .82193    | .78353    | .74726    | .68058    | .64993    | .62092     | .59345     |

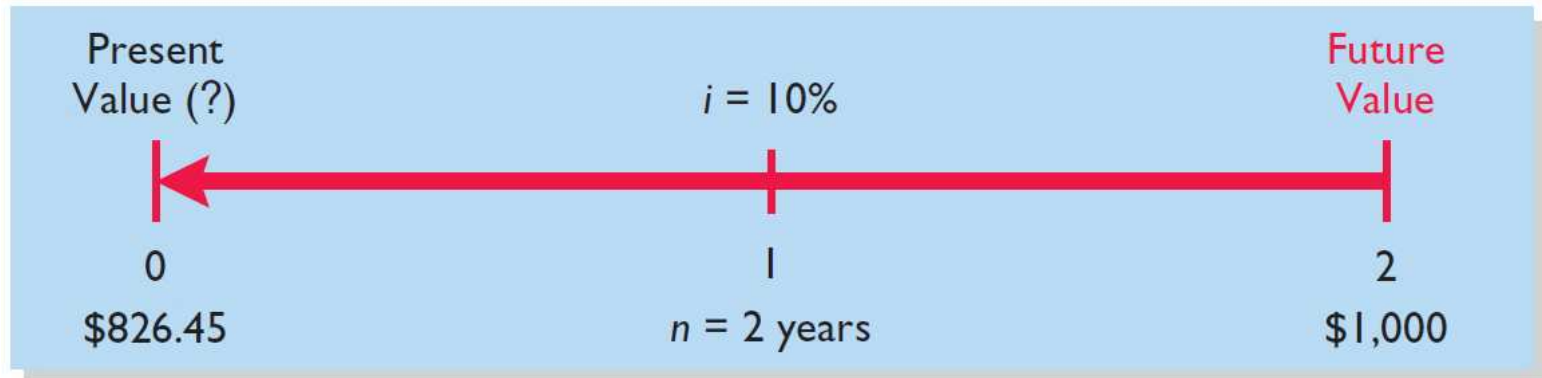
**What factor do we use?**

|                     |          |               |          |                      |
|---------------------|----------|---------------|----------|----------------------|
| <b>\$1,000</b>      | <b>x</b> | <b>.90909</b> | <b>=</b> | <b>\$909.09</b>      |
| <b>Future Value</b> |          | <b>Factor</b> |          | <b>Present Value</b> |

# PRESENT VALUE OF A SINGLE AMOUNT

## ILLUSTRATION G-11

Finding present value if discounted for two period



**Illustration:** If the single amount of \$1,000 is to be received in **two years** and discounted at 10% [ $PV = \$1,000 \div (1 + .10^2)$ ], its present value is \$826.45 [ $(\$1,000 \div 1.21)$ ].

**What table do we use?**

# PRESENT VALUE OF A SINGLE AMOUNT

**TABLE 3 Present Value of 1**

| <b>(n)</b><br><b>Periods</b> | <b>4%</b> | <b>5%</b> | <b>6%</b> | <b>8%</b> | <b>9%</b> | <b>10%</b>    | <b>11%</b> |
|------------------------------|-----------|-----------|-----------|-----------|-----------|---------------|------------|
| 1                            | .96154    | .95238    | .94340    | .92593    | .91743    | .90909        | .90090     |
| 2                            | .92456    | .90703    | .89000    | .85734    | .84168    | <b>.82645</b> | .81162     |
| 3                            | .88900    | .86384    | .83962    | .79383    | .77218    | .75132        | .73119     |
| 4                            | .85480    | .82270    | .79209    | .73503    | .70843    | .68301        | .65873     |
| 5                            | .82193    | .78353    | .74726    | .68058    | .64993    | .62092        | .59345     |

**What factor do we use?**

|                     |          |               |          |                      |
|---------------------|----------|---------------|----------|----------------------|
| <b>\$1,000</b>      | <b>x</b> | <b>.82645</b> | <b>=</b> | <b>\$826.45</b>      |
| <b>Future Value</b> |          | <b>Factor</b> |          | <b>Present Value</b> |

# PRESENT VALUE OF A SINGLE AMOUNT

**TABLE 3 Present Value of 1**

| (n)<br>Periods | 4%     | 5%     | 6%     | 8%     | 9%     | 10%    | 11%    |
|----------------|--------|--------|--------|--------|--------|--------|--------|
| 1              | .96154 | .95238 | .94340 | .92593 | .91743 | .90909 | .90090 |
| 2              | .92456 | .90703 | .89000 | .85734 | .84168 | .82645 | .81162 |
| 3              | .88900 | .86384 | .83962 | .79383 | .77218 | .75132 | .73119 |
| 4              | .85480 | .82270 | .79209 | .73503 | .70843 | .68301 | .65873 |
| 5              | .82193 | .78353 | .74726 | .68058 | .64993 | .62092 | .59345 |

**Illustration:** Suppose you have a winning lottery ticket and the state gives you the option of taking \$10,000 three years from now or taking the present value of \$10,000 now. The state uses an 8% rate in discounting. How much will you receive if you accept your winnings now?

|                     |          |               |          |                      |
|---------------------|----------|---------------|----------|----------------------|
| <b>\$10,000</b>     | <b>x</b> | <b>.79383</b> | <b>=</b> | <b>\$7,938.30</b>    |
| <b>Future Value</b> |          | <b>Factor</b> |          | <b>Present Value</b> |

# PRESENT VALUE OF A SINGLE AMOUNT

**TABLE 3 Present Value of 1**

| <b>(n)</b><br><b>Periods</b> | <b>4%</b> | <b>5%</b> | <b>6%</b> | <b>8%</b> | <b>9%</b>     | <b>10%</b> | <b>11%</b> |
|------------------------------|-----------|-----------|-----------|-----------|---------------|------------|------------|
| 1                            | .96154    | .95238    | .94340    | .92593    | .91743        | .90909     | .90090     |
| 2                            | .92456    | .90703    | .89000    | .85734    | .84168        | .82645     | .81162     |
| 3                            | .88900    | .86384    | .83962    | .79383    | .77218        | .75132     | .73119     |
| 4                            | .85480    | .82270    | .79209    | .73503    | <b>.70843</b> | .68301     | .65873     |
| 5                            | .82193    | .78353    | .74726    | .68058    | .64993        | .62092     | .59345     |

**Illustration:** Determine the amount you must deposit today in your SUPER savings account, paying 9% interest, in order to accumulate \$5,000 for a down payment 4 years from now on a new car.

$$\begin{array}{ccccc}
 \$5,000 & \times & .70843 & = & \$3,542.15 \\
 \text{Future Value} & & \text{Factor} & & \text{Present Value}
 \end{array}$$

# PRESSENT VALUE OF AN ANNUITY

---

The value now of a series of future receipts or payments, discounted assuming compound interest.

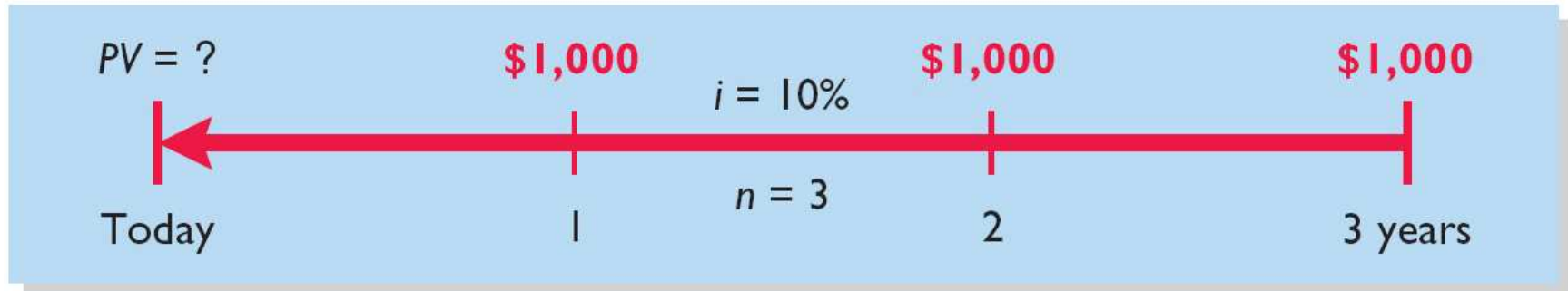
Necessary to know the:

1. Discount rate,
2. Number of payments (receipts).
3. Amount of the periodic payments or receipts.

# PRESENT VALUE OF AN ANNUITY

ILLUSTRATION G-14

Time diagram for a three-year annuity



**Illustration:** Assume that you will receive \$1,000 cash annually for three years at a time when the discount rate is 10%. Calculate the present value in this situation.

**What table do we use?**

# PRESENT VALUE OF AN ANNUITY

**TABLE 4** Present Value of an Annuity of 1

| (n)<br>Periods | 4%      | 5%      | 6%      | 8%      | 9%      | 10%     | 11%     | 12%     |
|----------------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1              | .96154  | .95238  | .94340  | .92593  | .91743  | .90909  | .90090  | .89286  |
| 2              | 1.88609 | 1.85941 | 1.83339 | 1.78326 | 1.75911 | 1.73554 | 1.71252 | 1.69005 |
| 3              | 2.77509 | 2.72325 | 2.67301 | 2.57710 | 2.53130 | 2.48685 | 2.44371 | 2.40183 |
| 4              | 3.62990 | 3.54595 | 3.46511 | 3.31213 | 3.23972 | 3.16986 | 3.10245 | 3.03735 |
| 5              | 4.45182 | 4.32948 | 4.21236 | 3.99271 | 3.88965 | 3.79079 | 3.69590 | 3.60478 |

**What factor do we use?**

$$\text{\$1,000} \quad \times \quad 2.48685 \quad = \quad \text{\$2,486.85}$$

**Annual Receipts**

**Factor**

**Present Value**

# PRESENT VALUE OF AN ANNUITY

**TABLE 4** Present Value of an Annuity of 1

| (n)<br>Periods | 4%      | 5%      | 6%      | 8%      | 9%      | 10%     | 11%     | 12%     |
|----------------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1              | .96154  | .95238  | .94340  | .92593  | .91743  | .90909  | .90090  | .89286  |
| 2              | 1.88609 | 1.85941 | 1.83339 | 1.78326 | 1.75911 | 1.73554 | 1.71252 | 1.69005 |
| 3              | 2.77509 | 2.72325 | 2.67301 | 2.57710 | 2.53130 | 2.48685 | 2.44371 | 2.40183 |
| 4              | 3.62990 | 3.54595 | 3.46511 | 3.31213 | 3.23972 | 3.16986 | 3.10245 | 3.03735 |
| 5              | 4.45182 | 4.32948 | 4.21236 | 3.99271 | 3.88965 | 3.79079 | 3.69590 | 3.60478 |

**Illustration:** Kildare Company has just signed a capitalizable lease contract for equipment that requires rental payments of \$6,000 each, to be paid at the end of each of the next 5 years. The appropriate discount rate is 12%. What is the amount used to capitalize the leased equipment?

$$\text{\$6,000} \times 3.60478 = \text{\$21,628.68}$$

# PRESENT VALUE OF AN ANNUITY

**Illustration:** Assume that the investor received \$500 **semiannually** for three years instead of \$1,000 annually when the discount rate was 10%. Calculate the present value of this annuity.

**TABLE 4 Present Value of an Annuity of 1**

| <b>(n)</b><br><b>Periods</b> | <b>4%</b> | <b>5%</b> | <b>6%</b> | <b>8%</b> | <b>9%</b> | <b>10%</b> | <b>11%</b> |
|------------------------------|-----------|-----------|-----------|-----------|-----------|------------|------------|
| 1                            | .96154    | .95238    | .94340    | .92593    | .91743    | .90909     | .90090     |
| 2                            | 1.88609   | 1.85941   | 1.83339   | 1.78326   | 1.75911   | 1.73554    | 1.71252    |
| 3                            | 2.77509   | 2.72325   | 2.67301   | 2.57710   | 2.53130   | 2.48685    | 2.44371    |
| 4                            | 3.62990   | 3.54595   | 3.46511   | 3.31213   | 3.23972   | 3.16986    | 3.10245    |
| 5                            | 4.45182   | 4.32948   | 4.21236   | 3.99271   | 3.88965   | 3.79079    | 3.69590    |
| 6                            | 5.24214   | 5.07569   | 4.91732   | 4.62288   | 4.48592   | 4.35526    | 4.23054    |
| 7                            | 6.00205   | 5.78637   | 5.58238   | 5.20637   | 5.03295   | 4.86842    | 4.71220    |
| 8                            | 6.73274   | 6.46321   | 6.20979   | 5.74664   | 5.53482   | 5.33493    | 5.14612    |

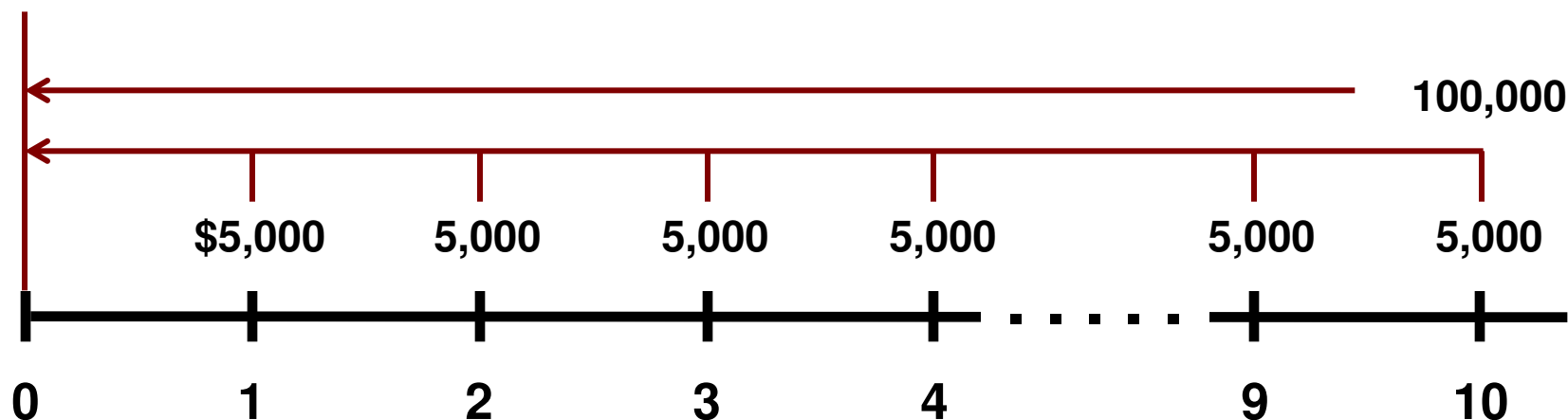
$$\text{\$500} \times 5.07569 = \text{\$2,537.85}$$

# Present Value of a Long-term Note or Bond

---

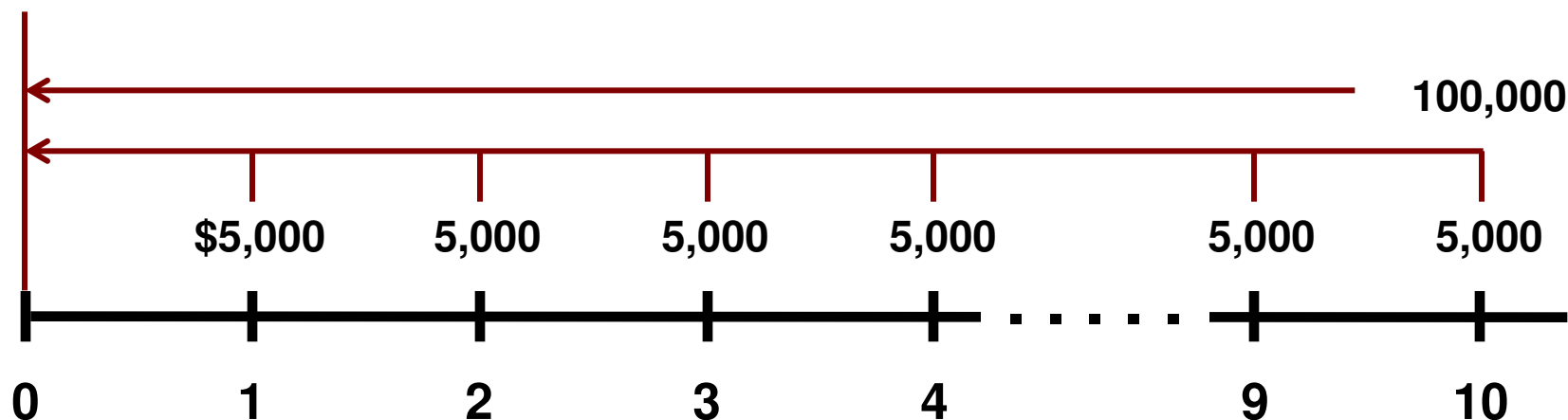
## Two Cash Flows:

- ◆ Periodic interest payments (annuity).
- ◆ Principal paid at maturity (single sum).



# Present Value of a Long-term Note or Bond

**Illustration:** Assume a bond issue of 10%, five-year bonds with a face value of \$100,000 with interest payable semiannually on January 1 and July 1. Calculate the present value of the **principal** and **interest payments**.



# Present Value of a Long-term Note or Bond

TABLE 3 Present Value of 1

PV of Principal

| (n)<br>Periods | 4%     | 5%     | 6%     | 8%     | 9%     | 10%    | 11%    |
|----------------|--------|--------|--------|--------|--------|--------|--------|
| 1              | .96154 | .95238 | .94340 | .92593 | .91743 | .90909 | .90090 |
| 2              | .92456 | .90703 | .89000 | .85734 | .84168 | .82645 | .81162 |
| 3              | .88900 | .86384 | .83962 | .79383 | .77218 | .75132 | .73119 |
| 4              | .85480 | .82270 | .79209 | .73503 | .70843 | .68301 | .65873 |
| 5              | .82193 | .78353 | .74726 | .68058 | .64993 | .62092 | .59345 |
| 6              | .79031 | .74622 | .70496 | .63017 | .59627 | .56447 | .53464 |
| 7              | .75992 | .71068 | .66506 | .58349 | .54703 | .51316 | .48166 |
| 8              | .73069 | .67684 | .62741 | .54027 | .50187 | .46651 | .43393 |
| 9              | .70259 | .64461 | .59190 | .50025 | .46043 | .42410 | .39092 |
| 10             | .67556 | .61391 | .55839 | .46319 | .42241 | .38554 | .35218 |

$$\begin{array}{rclclcl}
 \$100,000 & \times & .61391 & = & \$61,391 \\
 \text{Principal} & & \text{Factor} & & \text{Present Value}
 \end{array}$$

# Present Value of a Long-term Note or Bond

**TABLE 4** Present Value of an Annuity of 1

**PV of Interest**

| <b>(n)</b><br><b>Periods</b> | <b>4%</b> | <b>5%</b> | <b>6%</b> | <b>8%</b> | <b>9%</b> | <b>10%</b> | <b>11%</b> |
|------------------------------|-----------|-----------|-----------|-----------|-----------|------------|------------|
| 1                            | .96154    | .95238    | .94340    | .92593    | .91743    | .90909     | .90090     |
| 2                            | 1.88609   | 1.85941   | 1.83339   | 1.78326   | 1.75911   | 1.73554    | 1.71252    |
| 3                            | 2.77509   | 2.72325   | 2.67301   | 2.57710   | 2.53130   | 2.48685    | 2.44371    |
| 4                            | 3.62990   | 3.54595   | 3.46511   | 3.31213   | 3.23972   | 3.16986    | 3.10245    |
| 5                            | 4.45182   | 4.32948   | 4.21236   | 3.99271   | 3.88965   | 3.79079    | 3.69590    |
| 6                            | 5.24214   | 5.07569   | 4.91732   | 4.62288   | 4.48592   | 4.35526    | 4.23054    |
| 7                            | 6.00205   | 5.78637   | 5.58238   | 5.20637   | 5.03295   | 4.86842    | 4.71220    |
| 8                            | 6.73274   | 6.46321   | 6.20979   | 5.74664   | 5.53482   | 5.33493    | 5.14612    |
| 9                            | 7.43533   | 7.10782   | 6.80169   | 6.24689   | 5.99525   | 5.75902    | 5.53705    |
| 10                           | 8.11090   | 7.72173   | 7.36009   | 6.71008   | 6.41766   | 6.14457    | 5.88923    |

$$\begin{array}{rclclcl}
 \text{\$5,000} & \times & 7.72173 & = & \text{\$38,609} \\
 \text{Payment} & & \text{Factor} & & \text{Present Value}
 \end{array}$$

# Present Value of a Long-term Note or Bond

**Illustration:** Assume a bond issue of 10%, five-year bonds with a face value of \$100,000 with interest payable semiannually on January 1 and July 1.

|                            |                                |
|----------------------------|--------------------------------|
| Present value of Principal | \$61,391                       |
| Present value of Interest  | 38,609                         |
| Bond current market value  | <u><u><b>\$100,000</b></u></u> |

| Date | Account Title | Debit   | Credit  |
|------|---------------|---------|---------|
|      | Cash          | 100,000 |         |
|      | Bonds Payable |         | 100,000 |
|      |               |         |         |

# Present Value of a Long-term Note or Bond

**Illustration:** Now assume that the investor's required rate of return is 12%, not 10%. The future amounts are again \$100,000 and \$5,000, respectively, but now a discount rate of 6% ( $12\% \div 2$ ) must be used. Calculate the present value of the **principal** and **interest payments**.

| <u>10% Contractual Rate—12% Discount Rate</u>                                           |                               |
|-----------------------------------------------------------------------------------------|-------------------------------|
| <b>Present value of principal to be received at maturity</b>                            |                               |
| $\$100,000 \times .55839$ (Table 3)                                                     | \$ 55,839                     |
| <b>Present value of interest to be received periodically over the term of the bonds</b> |                               |
| $\$5,000 \times 7.36009$ (Table 4)                                                      | 36,800                        |
| <b>Present value of bonds</b>                                                           | <u><u><b>\$92,639</b></u></u> |

## ILLUSTRATION G-20

Present value of principal and interest—discount

# Present Value of a Long-term Note or Bond

**Illustration:** Now assume that the investor's required rate of return is 8%. The future amounts are again \$100,000 and \$5,000, respectively, but now a discount rate of 4% ( $8\% \div 2$ ) must be used. Calculate the present value of the **principal** and **interest payments**.

| <u>10% Contractual Rate—8% Discount Rate</u>                                            |                                |
|-----------------------------------------------------------------------------------------|--------------------------------|
| <b>Present value of principal to be received at maturity</b>                            |                                |
| \$100,000 $\times$ .67556 (Table 3)                                                     | \$ 67,556                      |
| <b>Present value of interest to be received periodically over the term of the bonds</b> |                                |
| \$5,000 $\times$ 8.11090 (Table 4)                                                      | 40,555                         |
| <b>Present value of bonds</b>                                                           | <u><u><b>\$108,111</b></u></u> |

## ILLUSTRATION G-21

Present value of principal and interest—premium

**LEARNING  
OBJECTIVE**

**3**

**Use a financial calculator to solve  
time value of money problems.**



**ILLUSTRATION G-22**  
Financial calculator keys

N = number of periods

I = interest rate per period

PV = present value

PMT = payment

FV = future value

# Using Financial Calculators

---

## PRESENT VALUE OF A SINGLE SUM

Assume that you want to know the present value of \$84,253 to be received in five years, discounted at 11% compounded annually.

|         |          |          |                |            |           |
|---------|----------|----------|----------------|------------|-----------|
| Inputs: | 5        | 11       | ?              | 0          | 84,253    |
|         | <b>N</b> | <b>I</b> | <b>PV</b>      | <b>PMT</b> | <b>FV</b> |
| Answer: |          |          | <b>-50,000</b> |            |           |

### ILLUSTRATION G-23

Calculator solution for present value of a single sum

# Using Financial Calculators

## PRESENT VALUE OF AN ANNUITY

Assume that you are asked to determine the present value of rental receipts of \$6,000 each to be received at the end of each of the next five years, when discounted at 12%.

|         |          |          |                   |            |           |
|---------|----------|----------|-------------------|------------|-----------|
| Inputs: | 5        | 12       | ?                 | 6,000      | 0         |
|         | <b>N</b> | <b>I</b> | <b>PV</b>         | <b>PMT</b> | <b>FV</b> |
| Answer: |          |          | <b>-21,628.66</b> |            |           |

### ILLUSTRATION G-24

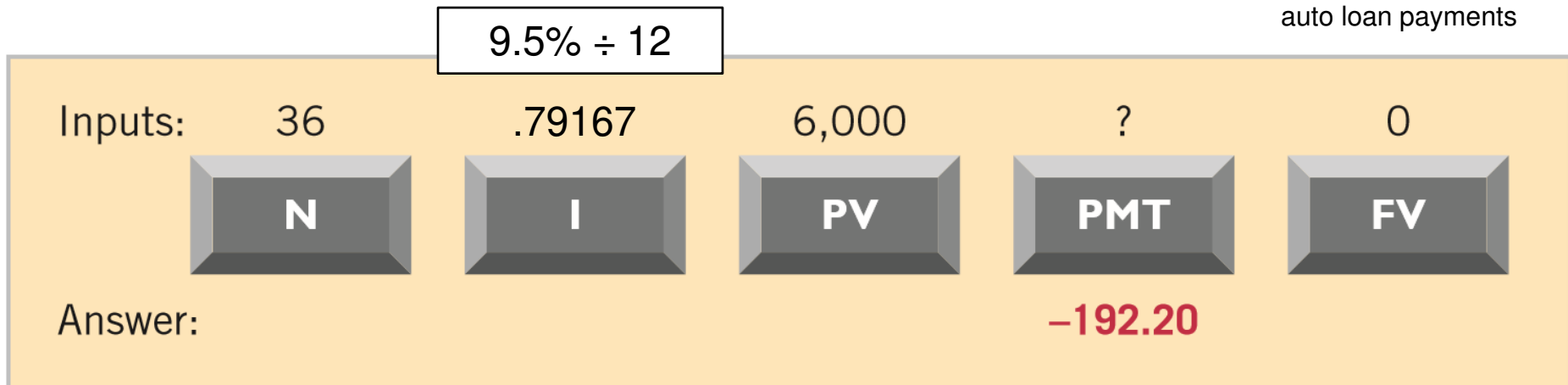
Calculator solution for present value of an annuity

# Using Financial Calculators

## USEFUL APPLICATIONS – Auto Loan

The loan has a 9.5% nominal annual interest rate, compounded monthly. The price of the car is \$6,000, and you want to determine the monthly payments, assuming that the payments start one month after the purchase.

**ILLUSTRATION G-25**  
Calculator solution for  
auto loan payments



# Using Financial Calculators

## USEFUL APPLICATIONS – Mortgage Loan

You decide that the maximum mortgage payment you can afford is \$700 per month. The annual interest rate is 8.4%. If you get a mortgage that requires you to make monthly payments over a 15-year period, what is the maximum purchase price you can afford?

ILLUSTRATION G-26  
Calculator solution for  
mortgage amount

|         |                 |          |                  |            |           |
|---------|-----------------|----------|------------------|------------|-----------|
|         | $8.4\% \div 12$ |          |                  |            |           |
| Inputs: | 180             | .70      | ?                | -700       | 0         |
|         | <b>N</b>        | <b>I</b> | <b>PV</b>        | <b>PMT</b> | <b>FV</b> |
| Answer: |                 |          | <b>71,509.81</b> |            |           |

# Copyright

---

“Copyright © 2016 John Wiley & Sons, Inc. All rights reserved. Reproduction or translation of this work beyond that permitted in Section 117 of the 1976 United States Copyright Act without the express written permission of the copyright owner is unlawful. Request for further information should be addressed to the Permissions Department, John Wiley & Sons, Inc. The purchaser may make back-up copies for his/her own use only and not for distribution or resale. The Publisher assumes no responsibility for errors, omissions, or damages, caused by the use of these programs or from the use of the information contained herein.”

# 1

WILEY

---

## Introduction to Financial Statements

Kimmel • Weygandt • Kieso  
Accounting, Sixth Edition

# CHAPTER OUTLINE

## LEARNING OBJECTIVES

**1**

Identify the forms of business organization and the uses of accounting information.

**2**

Explain the three principal types of business activity.

**3**

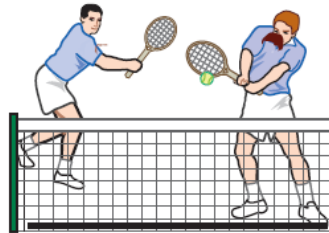
Describe the four financial statements and how they are prepared.

## **FORMS OF BUSINESS ORGANIZATION**



### **Sole Proprietorship**

- Simple to establish
- Owner controlled
- Tax advantages



### **Partnership**

- Simple to establish
- Shared control
- Broader skills and resources
- Tax advantages



### **Corporation**

- Easier to transfer ownership
- Easier to raise funds
- No personal liability

# USERS AND USES OF FINANCIAL INFORMATION

## Internal Users



### Marketing

What price should **Apple** charge for an iPad to maximize the company's net income?



### Finance

Is cash sufficient to pay dividends to **Microsoft** stockholders?



Snack chips



Beverages

### Management

Which **PepsiCo** product line is the most profitable? Should any product lines be eliminated?



### Human Resources

Can **General Motors** afford to give its employees pay raises this year?

**Illustration 1-1**  
Questions that internal users ask

# ACCOUNTING ACROSS THE ORGANIZATION

## Owning a Piece of the Bar

The original Clif Bar® energy bar was created in 1990 after six months of experimentation by Gary Erickson and his mother in her kitchen. Today, the company has almost 300 employees and is considered one of the leading Landor's Breakaway Brands®. One of **Clif Bar & Company's** proudest moments was the creation of an employee stock ownership plan (ESOP) in 2010. This plan gives its employees 20% ownership of the company. The ESOP also resulted in Clif Bar enacting an open-book management program, including the commitment to educate all employee-owners about its finances. Armed with basic accounting knowledge, employees are more aware of the financial impact of their actions, which leads to better decisions.

# USERS AND USES OF FINANCIAL INFORMATION

## External Users



### Investors

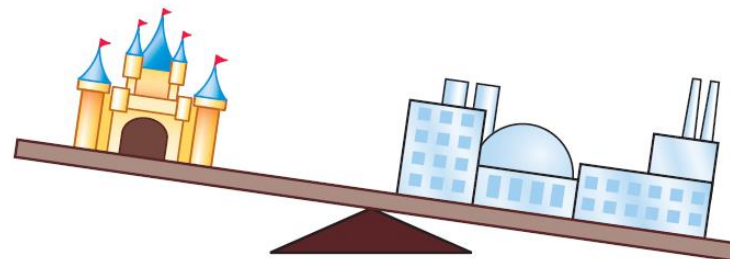
Is **General Electric** earning satisfactory income?

**Illustration 1-2**  
Questions that external users ask



### Creditors

Will **United Airlines** be able to pay its debts as they come due?



### Investors

How does **Disney** compare in size and profitability with **Time Warner**?

# ACCOUNTING ACROSS THE ORGANIZATION

## Spinning the Career Wheel

How will the study of accounting help you? A working knowledge of accounting is desirable for virtually every field of business. Some examples of how accounting is used in business careers include the following.

**General management:** Managers of **Ford Motors**, Massachusetts General Hospital, California State University–Fullerton, a **McDonald's** franchise, and a **Trek** bike shop all need to understand accounting data in order to make wise business decisions.

**Marketing:** Marketing specialists at **Procter & Gamble** must be sensitive to costs and benefits, which accounting helps them quantify and understand. Making a sale is meaningless unless it is a profitable sale.

# ACCOUNTING ACROSS THE ORGANIZATION

## Spinning the Career Wheel

**Finance:** Do you want to be a banker for **Citicorp**, an investment analyst for **Goldman Sachs**, or a stock broker for **Merrill Lynch**? These fields rely heavily on accounting knowledge to analyze financial statements. In fact, it is difficult to get a good job in a finance function without two or three courses in accounting.

**Real estate:** Are you interested in being a real estate broker for **Prudential Real Estate**? Because a third party—the bank—is almost always involved in financing a real estate transaction, brokers must understand the numbers involved: Can the buyer afford to make the payments to the bank? Does the cash flow from an industrial property justify the purchase price? What are the tax benefits of the purchase?

# USERS AND USES OF FINANCIAL INFORMATION

---

## Ethics In Financial Reporting

United States regulators and lawmakers were very concerned that the economy would suffer if investors lost confidence in corporate accounting because of unethical financial reporting.

- ◆ Recent **financial scandals** include: **Enron**, **WorldCom**, **HealthSouth**, **ALG**, and others.
- ◆ Congress passed **Sarbanes-Oxley Act (SOX)**.
- ◆ Effective financial reporting depends on sound ethical behavior.

# USERS AND USES OF FINANCIAL INFORMATION

---

## Solving an Ethical Dilemma

### 1. Recognize an ethical situation and the ethical issues involved.

Use your personal ethics to identify ethical situations and issues. Some businesses and professional organizations provide written codes of ethics for guidance in some business situations.

### 2. Identify and analyze the principal elements in the situation.

Identify the **stakeholders**—persons or groups who may be harmed or benefited. Ask the question: What are the responsibilities and obligations of the parties involved?



### Illustration 1-3

Steps in analyzing ethics cases

### 3. Identify the alternatives, and weigh the impact of each alternative on various stakeholders.

Select the most ethical alternative, considering all the consequences. Sometimes there will be one right answer. Other situations involve more than one right solution; these situations require you to evaluate each alternative and select the best one.

## **I Felt the Pressure—Would You?**

“I felt the pressure.” That’s what some of the employees of the now-defunct law firm of **Dewey & LeBoeuf LLP** indicated when they helped to overstate revenue and use accounting tricks to hide losses and cover up cash shortages. These employees worked for the former finance director and former chief financial officer (CFO) of the firm. Here are some of their comments:

- “I was instructed by the CFO to create invoices, knowing they would not be sent to clients. When I created these invoices, I knew that it was inappropriate.”
- “I intentionally gave the auditors incorrect information in the course of the audit.”

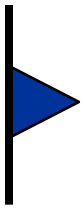
(continued)

## **I Felt the Pressure—Would You?**

What happened here is that a small group of lower-level employees over a period of years carried out the instructions of their bosses. Their bosses, however, seemed to have no concern as evidenced by various e-mails with one another in which they referred to their financial manipulations as accounting tricks, cooking the books, and fake income.

*Source:* Ashby Jones, “Guilty Pleas of Dewey Staff Detail the Alleged Fraud,” Wall Street Journal (March 28, 2014).

**DO IT!**



**1**

## **Business Organization Forms**

In choosing the organizational form for your outdoor guide service, you should consider the pros and cons of each. Identify each of the following organizational characteristics with the organizational form or forms with which it is associated.

1. Easier to raise funds.
2. Simple to establish.
3. No personal legal liability.
4. Tax advantages.
5. Easier to transfer ownership.

### **SOLUTION**

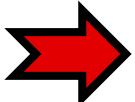
1. Corporation.
2. Sole proprietorship and partnership.
3. Corporation.
4. Sole proprietorship and partnership.
5. Corporation.

# USERS AND USES OF FINANCIAL INFORMATION

---

## Review Question

Which of the following did **not** result from the Sarbanes-Oxley Act?

- a. Top management must now certify the accuracy of financial information.
- b. Penalties for fraudulent activity increased.
- c. Independence of auditors increased.
-  d. Tax rates on corporations increased.

## Explain the three principal types of business activity.

All businesses are involved in three types of activity —

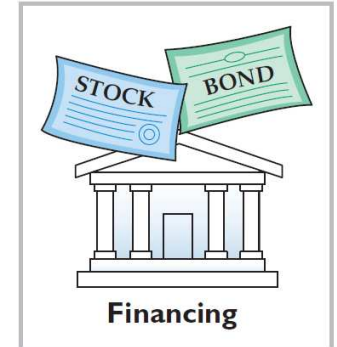
- ◆ financing,
- ◆ investing, and
- ◆ operating.

The **accounting information system** keeps track of the results of each of these business activities.

# FINANCING ACTIVITIES

---

Two primary sources of outside funds are:



## 1. Borrowing money (debt)

- ◆ Amounts owed are called **liabilities**.
- ◆ Party to whom amounts are owed are creditors.
- ◆ **Notes payable** and **bonds payable** are different types of liabilities.

## 2. Issuing (selling) shares of stock for cash (equity).

- ◆ **Common stock** is the term used to describe the amount paid by stockholders for shares they purchase.
- ◆ Payments to stockholders are called **dividends**.

# INVESTING ACTIVITIES

---

**Purchase of resources a company needs to operate.**

- ◆ Computers, delivery trucks, furniture, buildings.
- ◆ Resources owned by a business are called **assets**.
- ◆ **Investments** are another example of an investing activity.

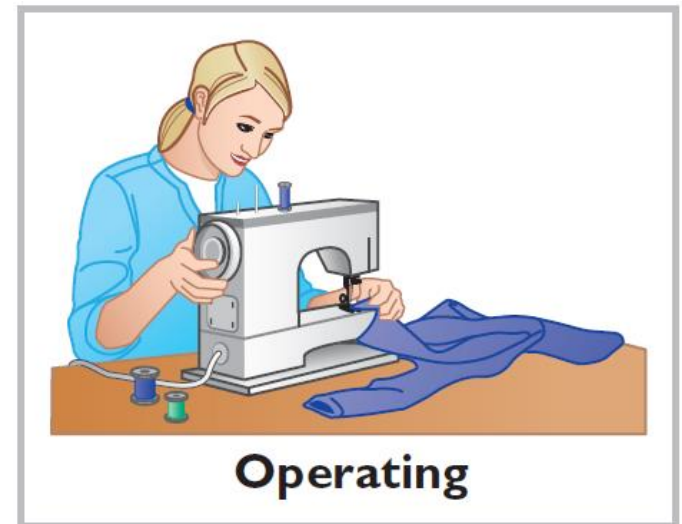


# OPERATING ACTIVITIES

---

Once a business has the assets it needs, it can begin its operations.

- ◆ **Revenues** - Amounts earned from the sale of products and other sources (**sales revenue**, **service revenue**, and **interest revenue**).
- ◆ **Inventory** - Goods available for sale to customers.
- ◆ **Accounts receivable** - Right to receive money from a customer as the result of a sale.



# OPERATING ACTIVITIES

---

Once a business has the assets it needs, it can begin its operations.

- ◆ **Expenses** - cost of assets consumed or services used. (cost of goods sold, selling, marketing, administrative, interest, and income taxes expense).
- ◆ Liabilities arising from expenses include **accounts payable, interest payable, wages payable, sales taxes payable, and income taxes payable.**
- ◆ **Net income** – when revenues exceed expenses.
- ◆ **Net loss** – when expenses exceed revenues.

**DO IT!**

**2**

## **Business Activities**

Classify each item as an asset, liability, common stock, revenue, or expense.

### **SOLUTION**

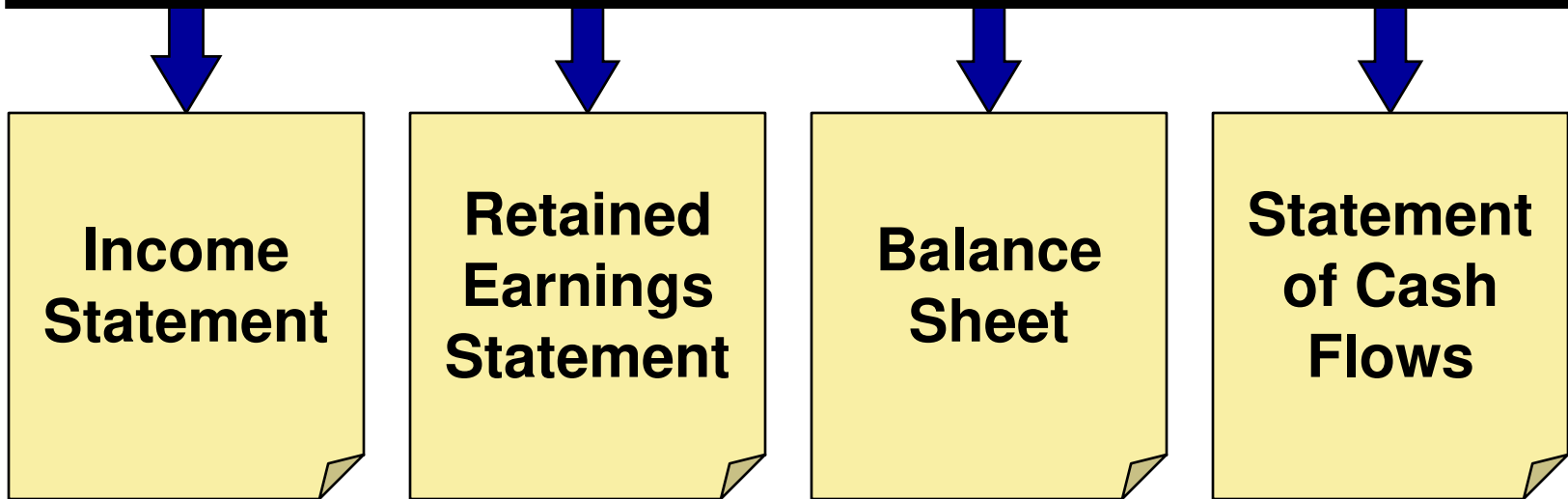
- |                                          |                  |
|------------------------------------------|------------------|
| 1. Cost of renting property.             | 1. Expense.      |
| 2. Truck purchased.                      | 2. Asset.        |
| 3. Notes payable.                        | 3. Liabilities.  |
| 4. Issuance of ownership shares.         | 4. Common stock. |
| 5. Amount earned from providing service. | 5. Revenue.      |
| 6. Amounts owed to suppliers.            | 6. Liabilities.  |

**LEARNING  
OBJECTIVE**

**3**

**Describe the four financial statements and how they are prepared.**

Companies prepare four financial statements from the summarized accounting data:



**INTERNATIONAL NOTE** The primary types of financial statements required by International Financial Reporting Standards (IFRS) and U.S. generally accepted accounting principles (GAAP) are the same.

# FINANCIAL STATEMENTS

## Income Statement

Illustration 1-4

| SIERRA CORPORATION                   |         |       |          |
|--------------------------------------|---------|-------|----------|
| Income Statement                     |         |       |          |
| For the Month Ended October 31, 2017 |         |       |          |
| Revenues                             |         |       |          |
| Service revenue                      |         |       | \$10,600 |
| Expenses                             |         |       |          |
| Salaries and wages expense           | \$5,200 |       |          |
| Rent expense                         | 900     |       |          |
| Supplies expense                     | 1,500   |       |          |
| Depreciation expense                 | 40      |       |          |
| Interest expense                     | 50      |       |          |
| Insurance expense                    | 50      |       |          |
| Total expenses                       |         | 7,740 |          |
| Net income                           |         |       | \$ 2,860 |

- ◆ Reports revenues and expenses for a specific **period of time**.
- ◆ **Net income** – revenues exceed expenses.
- ◆ **Net loss** – expenses exceed revenues.
- ◆ Past net income provides information for **predicting future net income**.

▼ **Helpful Hint** The financial statement heading identifies the company, the type of statement, and the time period covered. Sometimes, another line indicates the unit of measure, e.g., “in thousands” or “in millions.”

Accounting Tools for Business Decision Making 6th edition Kimmel Solutions Manual

# FINANCIAL STATEMENTS

## Income Statement

Illustration 1-4

| SIERRA CORPORATION                   |         |       |                 |
|--------------------------------------|---------|-------|-----------------|
| Income Statement                     |         |       |                 |
| For the Month Ended October 31, 2017 |         |       |                 |
| Revenues                             |         |       |                 |
| Service revenue                      |         |       | \$10,600        |
| Expenses                             |         |       |                 |
| Salaries and wages expense           | \$5,200 |       |                 |
| Rent expense                         | 900     |       |                 |
| Supplies expense                     | 1,500   |       |                 |
| Depreciation expense                 | 40      |       |                 |
| Interest expense                     | 50      |       |                 |
| Insurance expense                    | 50      |       |                 |
|                                      |         |       |                 |
| Total expenses                       |         | 7,740 |                 |
| Net income                           |         |       | <u>\$ 2,860</u> |

## Retained Earnings Statement

Illustration 1-5

| SIERRA CORPORATION                   |                       |
|--------------------------------------|-----------------------|
| Retained Earnings Statement          |                       |
| For the Month Ended October 31, 2017 |                       |
| Retained earnings, October 1         | \$ 0                  |
| Add: Net income                      | <u>2,860</u>          |
|                                      | 2,860                 |
| Less: Dividends                      | <u>500</u>            |
| Retained earnings, October 31        | <u><u>\$2,360</u></u> |

**Net income** is needed to determine the **ending balance** in **retained earnings**.

# FINANCIAL STATEMENTS

- ◆ Statement shows amounts and **causes of changes** in retained earnings during the period.
- ◆ **Time period is the same** as that covered by the income statement.
- ◆ Users can **evaluate dividend** payment practices.

## Retained Earnings Statement

Illustration 1-5

| SIERRA CORPORATION                   |                |
|--------------------------------------|----------------|
| Retained Earnings Statement          |                |
| For the Month Ended October 31, 2017 |                |
| Retained earnings, October 1         | \$ 0           |
| Add: Net income                      | 2,860          |
|                                      | <u>2,860</u>   |
| Less: Dividends                      | 500            |
| Retained earnings, October 31        | <u>\$2,360</u> |

▼ **Helpful Hint** The heading of this statement identifies the company, the type of statement, and the time period covered by the statement.

# FINANCIAL STATEMENTS

## Balance Sheet

Illustration 1-7

| SIERRA CORPORATION                          |          |                 |
|---------------------------------------------|----------|-----------------|
| Balance Sheet                               |          |                 |
| October 31, 2017                            |          |                 |
| <u>Assets</u>                               |          |                 |
| Cash                                        |          | \$15,200        |
| Accounts receivable                         |          | 200             |
| Supplies                                    |          | 1,000           |
| Prepaid insurance                           |          | 550             |
| Equipment, net                              |          | 4,960           |
| Total assets                                |          | <u>\$21,910</u> |
| <u>Liabilities and Stockholders' Equity</u> |          |                 |
| Liabilities                                 |          |                 |
| Notes payable                               | \$ 5,000 |                 |
| Accounts payable                            | 2,500    |                 |
| Unearned service revenue                    | 800      |                 |
| Salaries and wages payable                  | 1,200    |                 |
| Interest payable                            | 50       |                 |
| Total liabilities                           |          | \$ 9,550        |
| Stockholders' equity                        |          |                 |
| Common stock                                | 10,000   |                 |
| Retained earnings                           | 2,360    |                 |
| Total stockholders' equity                  |          | <u>12,360</u>   |
| Total liabilities and stockholders' equity  |          | <u>\$21,910</u> |

## Retained Earnings Statement

Illustration 1-5

| SIERRA CORPORATION                   |                |
|--------------------------------------|----------------|
| Retained Earnings Statement          |                |
| For the Month Ended October 31, 2017 |                |
| Retained earnings, October 1         | \$ 0           |
| Add: Net income                      | <u>2,860</u>   |
|                                      | 2,860          |
| Less: Dividends                      | <u>500</u>     |
| Retained earnings, October 31        | <u>\$2,360</u> |

**Ending balance** in **retained earnings** is needed in preparing the **balance sheet**.

# FINANCIAL STATEMENTS

## Balance Sheet

Illustration 1-7

|  <b>SIERRA CORPORATION</b><br>Balance Sheet<br>October 31, 2017 |          |                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------|
| <u>Assets</u>                                                                                                                                   |          |                 |
| Cash                                                                                                                                            |          | \$15,200        |
| Accounts receivable                                                                                                                             |          | 200             |
| Supplies                                                                                                                                        |          | 1,000           |
| Prepaid insurance                                                                                                                               |          | 550             |
| Equipment, net                                                                                                                                  |          | 4,960           |
| Total assets                                                                                                                                    |          | <u>\$21,910</u> |
| <u>Liabilities and Stockholders' Equity</u>                                                                                                     |          |                 |
| Liabilities                                                                                                                                     |          |                 |
| Notes payable                                                                                                                                   | \$ 5,000 |                 |
| Accounts payable                                                                                                                                | 2,500    |                 |
| Unearned service revenue                                                                                                                        | 800      |                 |
| Salaries and wages payable                                                                                                                      | 1,200    |                 |
| Interest payable                                                                                                                                | 50       |                 |
| Total liabilities                                                                                                                               |          | \$ 9,550        |
| Stockholders' equity                                                                                                                            |          |                 |
| Common stock                                                                                                                                    | 10,000   |                 |
| Retained earnings                                                                                                                               | 2,360    |                 |
| Total stockholders' equity                                                                                                                      |          | <u>12,360</u>   |
| Total liabilities and stockholders' equity                                                                                                      |          | <u>\$21,910</u> |

- ◆ Reports assets and claims to assets at a specific point in time.
- ◆ **Assets = Liabilities + Stockholders' Equity.**
- ◆ Lists **assets first**, followed by liabilities and stockholders' equity.

▼ **Helpful Hint** The heading of a balance sheet must identify the company, the statement, and the date.

# FINANCIAL STATEMENTS

## Balance Sheet

Illustration 1-7

|  <b>SIERRA CORPORATION</b><br>Balance Sheet<br>October 31, 2017 |          |          |                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|-----------------|
| <u>Assets</u>                                                                                                                                   |          |          |                 |
| Cash                                                                                                                                            |          |          | \$15,200        |
| Accounts receivable                                                                                                                             |          |          | 200             |
| Supplies                                                                                                                                        |          |          | 1,000           |
| Prepaid insurance                                                                                                                               |          |          | 550             |
| Equipment, net                                                                                                                                  |          |          | 4,960           |
| Total assets                                                                                                                                    |          |          | <u>\$21,910</u> |
| <u>Liabilities and Stockholders' Equity</u>                                                                                                     |          |          |                 |
| Liabilities                                                                                                                                     |          |          |                 |
| Notes payable                                                                                                                                   | \$ 5,000 |          |                 |
| Accounts payable                                                                                                                                | 2,500    |          |                 |
| Unearned service revenue                                                                                                                        | 800      |          |                 |
| Salaries and wages payable                                                                                                                      | 1,200    |          |                 |
| Interest payable                                                                                                                                | 50       |          |                 |
| Total liabilities                                                                                                                               |          | \$ 9,550 |                 |
| Stockholders' equity                                                                                                                            |          |          |                 |
| Common stock                                                                                                                                    | 10,000   |          |                 |
| Retained earnings                                                                                                                               | 2,360    |          |                 |
| Total stockholders' equity                                                                                                                      |          | 12,360   |                 |
| Total liabilities and stockholders' equity                                                                                                      |          |          | <u>\$21,910</u> |

## Statement of Cash Flows

Illustration 1-8

|  <b>SIERRA CORPORATION</b><br>Statement of Cash Flows<br>For the Month Ended October 31, 2017 |          |                 |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------|--|
| Cash flows from <b>operating</b> activities                                                                                                                                      |          |                 |  |
| Cash receipts from operating activities                                                                                                                                          | \$11,200 |                 |  |
| Cash payments for operating activities                                                                                                                                           | (5,500)  |                 |  |
| Net cash provided by operating activities                                                                                                                                        |          | \$ 5,700        |  |
| Cash flows from <b>investing</b> activities                                                                                                                                      |          |                 |  |
| Purchased office equipment                                                                                                                                                       | (5,000)  |                 |  |
| Net cash used by investing activities                                                                                                                                            |          | (5,000)         |  |
| Cash flows from <b>financing</b> activities                                                                                                                                      |          |                 |  |
| Issuance of common stock                                                                                                                                                         | 10,000   |                 |  |
| Issuance of note payable                                                                                                                                                         | 5,000    |                 |  |
| Payment of dividend                                                                                                                                                              | (500)    |                 |  |
| Net cash provided by financing activities                                                                                                                                        |          | 14,500          |  |
| Net increase in cash                                                                                                                                                             |          | 15,200          |  |
| Cash at beginning of period                                                                                                                                                      |          | 0               |  |
| Cash at end of period                                                                                                                                                            |          | <u>\$15,200</u> |  |

# FINANCIAL STATEMENTS

## Statement of Cash Flows

Illustration 1-8

|  <b>SIERRA CORPORATION</b><br>Statement of Cash Flows<br>For the Month Ended October 31, 2017 |                |                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------------|
| Cash flows from <b>operating</b> activities                                                                                                                                   |                |                        |
| Cash receipts from operating activities                                                                                                                                       | \$11,200       |                        |
| Cash payments for operating activities                                                                                                                                        | <u>(5,500)</u> |                        |
| Net cash provided by operating activities                                                                                                                                     |                | \$ 5,700               |
| Cash flows from <b>investing</b> activities                                                                                                                                   |                |                        |
| Purchased office equipment                                                                                                                                                    | <u>(5,000)</u> |                        |
| Net cash used by investing activities                                                                                                                                         |                | (5,000)                |
| Cash flows from <b>financing</b> activities                                                                                                                                   |                |                        |
| Issuance of common stock                                                                                                                                                      | 10,000         |                        |
| Issuance of note payable                                                                                                                                                      | 5,000          |                        |
| Payment of dividend                                                                                                                                                           | <u>(500)</u>   |                        |
| Net cash provided by financing activities                                                                                                                                     |                | <u>14,500</u>          |
| Net increase in cash                                                                                                                                                          |                | 15,200                 |
| Cash at beginning of period                                                                                                                                                   |                | <u>0</u>               |
| Cash at end of period                                                                                                                                                         |                | <u><u>\$15,200</u></u> |

Provides answers to:

- ◆ Where did cash come from during the period?
- ◆ How was cash used during the period?
- ◆ What was the change in the cash balance during the period?

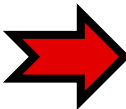
▼ **Helpful Hint** The heading identifies the company, the type of statement, and the time period covered by the statement. Negative numbers are shown in parentheses.

# FINANCIAL STATEMENTS

---

## Review Question

Net income will result during a time period when:

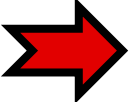
- a. assets exceed liabilities.
- b. assets exceed revenues.
- c. expenses exceed revenues.
-  d. revenues exceed expenses.

# FINANCIAL STATEMENTS

---

## Review Question

Which of the following financial statements is prepared as of a specific date?

-  a. Balance sheet.
- b. Income statement.
- c. Retained earnings statement.
- d. Statement of cash flows.

# PEOPLE, PLANET, AND PROFIT INSIGHT

## Beyond Financial Statements

Should we expand our corporate reports beyond the income statement, retained earnings statement, balance sheet, and statement of cash flows? Some believe we should take into account ecological and social performance, in addition to financial results, in evaluating a company. The argument is that a company's responsibility lies with anyone who is influenced by its actions. In other words, a company should be interested in benefiting many different parties, instead of only maximizing stockholders' interests. A socially responsible business does not exploit or endanger any group of individuals. It follows fair trade practices, provides safe environments for workers, and bears responsibility for environmental damage. Granted, measurement of these factors is difficult. How to report this information is also controversial. But many interesting and useful efforts are underway. Throughout this textbook, we provide additional insights into how companies are attempting to meet the challenge of measuring and reporting their contributions to society, as well as their financial results, to stockholders.

**DO IT!**

**3a**

## Financial Statements

CSU Corporation began operations on January 1, 2017. The following information is available for CSU on December 31, 2017:

|                     |        |                   |        |
|---------------------|--------|-------------------|--------|
| Accounts receivable | 1,800  | Retained earnings | ?      |
| Supplies expense    | 200    | Accounts payable  | 2,000  |
| Equipment           | 16,000 | Cash              | 1,400  |
| Rent expense        | 9,000  | Insurance expense | 1,000  |
| Dividends           | 600    | Notes payable     | 5,000  |
| Service revenue     | 17,000 | Common stock      | 10,000 |
| Supplies            | 4,000  |                   |        |

Prepare an income statement, a retained earnings statement, and a balance sheet.

Prepare an **income statement** using the following accounts.

|                     |        |                   |        |
|---------------------|--------|-------------------|--------|
| Accounts receivable | 1,800  | Retained earnings | ?      |
| Supplies expense    | 200    | Accounts payable  | 2,000  |
| Equipment           | 16,000 | Cash              | 1,400  |
| Rent expense        | 9,000  | Insurance expense | 1,000  |
| Dividends           | 600    | Notes payable     | 5,000  |
| Service revenue     | 17,000 | Common stock      | 10,000 |
| Supplies            | 4,000  |                   |        |

### Income Statement

For the Year Ended December 31, 2017

Revenues

Expenses

Total expenses

Net income

Prepare a **retained earnings statement** using the following accounts.

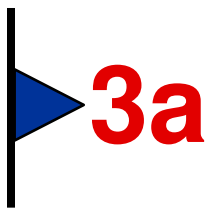
|                     |        |
|---------------------|--------|
| Accounts receivable | 1,800  |
| Supplies expense    | 200    |
| Equipment           | 16,000 |
| Rent expense        | 9,000  |
| Dividends           | 600    |
| Service revenue     | 17,000 |
| Supplies            | 4,000  |

|                   |        |
|-------------------|--------|
| Retained earnings | ?      |
| Accounts payable  | 2,000  |
| Cash              | 1,400  |
| Insurance expense | 1,000  |
| Notes payable     | 5,000  |
| Common stock      | 10,000 |

### Retained Earnings Statement For the Year Ended December 31, 2017

|                                |       |
|--------------------------------|-------|
| Retained earnings, January 1   | \$ 0  |
|                                | _____ |
|                                | _____ |
| Retained earnings, December 31 | ===== |

**DO IT!**



## Financial Statements

CSU Corporation began operations on January 1, 2017. The following information is available for CSU on December 31, 2017:

|                     |        |                   |        |
|---------------------|--------|-------------------|--------|
| Accounts receivable | 1,800  | Retained earnings | ?      |
| Supplies expense    | 200    | Accounts payable  | 2,000  |
| Equipment           | 16,000 | Cash              | 1,400  |
| Rent expense        | 9,000  | Insurance expense | 1,000  |
| Dividends           | 600    | Notes payable     | 5,000  |
| Service revenue     | 17,000 | Common stock      | 10,000 |
| Supplies            | 4,000  |                   |        |

Prepare an a **balance sheet**.

Balance Sheet  
December 31, 2017

Assets

Total assets

Liabilities and Stockholders' Equity

Liabilities

Total liabilities

Stockholders' equity

Total stockholders' equity

Total liabilities and stockholders' equity

# OTHER ELEMENTS OF AN ANNUAL REPORT

---

U.S. companies that are publicly traded must provide shareholders with an **annual report**.

The annual report always includes:

- ◆ Financial statements.
- ◆ Management discussion and analysis.
- ◆ Notes to the financial statements.
- ◆ Auditor's report.

# ELEMENTS OF AN ANNUAL REPORT

---

## Management Discussion and Analysis

**Management discussion and analysis (MD&A)** presents management's view on the company's ability to pay near-term obligations, its ability to fund operations and expansion, and its results of operations.

Management must highlight **favorable or unfavorable trends** and identify **significant events and uncertainties** that affect these three factors.

# ELEMENTS OF AN ANNUAL REPORT

---

## Management Discussion and Analysis



### COLUMBIA SPORTSWEAR COMPANY

#### Management's Discussion and Analysis of Seasonality and Variability of Business

Our operations are affected by seasonal trends typical in the outdoor apparel and footwear industry and have historically resulted in higher sales and profits in the third and fourth calendar quarters. This pattern has resulted primarily from the timing of shipments of fall season products to wholesale customers in the third and fourth quarters and proportionally higher sales in our direct-to-consumer operations in the fourth quarter, combined with an expense base that is spread more evenly throughout the year. We believe that our liquidity requirements for at least the next 12 months will be adequately covered by existing cash, cash provided by operations and existing short-term borrowing arrangements.

#### ILLUSTRATION 1-10

Columbia Sportswear's  
management discussion and analysis

# ELEMENTS OF AN ANNUAL REPORT

---

## Notes to the Financial Statements

- ◆ Clarify the financial statements.
- ◆ Provide additional detail.

**Notes** are essential to understanding a company's operating performance and financial position.

ILLUSTRATION 1-11

|                                                                                                                                                                                                                                                                                                                                                             |                                                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                           | <b>COLUMBIA SPORTSWEAR COMPANY</b><br>Notes to Financial Statements<br>Revenue Recognition |
| <p>We record wholesale, distributor, e-commerce and licensed product revenues when title passes and the risks and rewards of ownership have passed to the customer. Title generally passes upon shipment to, or upon receipt by, the customer depending on the terms of sale with the customer. Retail store revenues are recorded at the time of sale.</p> |                                                                                            |

# ELEMENTS OF AN ANNUAL REPORT

---

## Auditor's Report

- ◆ **Auditor's** opinion as to the fairness of the presentation of the financial position and results of operations and their conformance with generally accepted accounting principles.
- ◆ Only certified public accountants (CPA) may perform audits.

# ELEMENTS OF AN ANNUAL REPORT

---

## Auditor's Report

Real  
World

### COLUMBIA SPORTSWEAR COMPANY

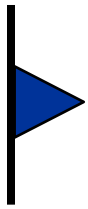
Excerpt from Auditor's Report

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Columbia Sportswear Company and subsidiaries as of December 31, 2014 and 2013, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2014, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, such financial statement schedules, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

#### ILLUSTRATION 1-12

Excerpt from auditor's report on  
Columbia Sportswear's financial  
statements

**DO IT!**



**3b**

## Components of Annual Report

State whether each of the following items is most closely associated with the management discussion and analysis (MD&A), the notes to the financial statements, or the auditor's report.

### **SOLUTION**

- |                                                             |                     |
|-------------------------------------------------------------|---------------------|
| 1. Descriptions of significant accounting policies.         | 1. Notes            |
| 2. Unqualified opinion.                                     | 2. Auditor's report |
| 3. Explanations of uncertainties and contingencies.         | 3. Notes            |
| 4. Description of ability to fund operations and expansion. | 4. MD&A             |
| 5. Description of results of operations.                    | 5. MD&A             |
| 6. Certified public accountant (CPA).                       | 6. Auditor's report |



# A Look at IFRS

## LEARNING OBJECTIVE

▶ **4**

**Describe the impact of international accounting standards on U.S. financial reporting.**

## KEY POINTS

### Similarities

- ◆ The basic techniques for recording business transactions are the same for U.S. and international companies.
- ◆ Both international and U.S. accounting standards emphasize transparency in financial reporting. Both sets of standards are primarily driven by meeting the needs of investors and creditors.



# A Look at IFRS

---

## KEY POINTS

### Similarities

- ◆ The three most common forms of business organizations, proprietorships, partnerships, and corporations, are also found in countries that use international accounting standards.

### Differences

- ◆ International standards are referred to as International Financial Reporting Standards (IFRS), developed by the International Accounting Standards Board. Accounting standards in the United States are referred to as generally accepted accounting principles (GAAP) and are developed by the Financial Accounting Standards Board.



# A Look at IFRS

---

## KEY POINTS

### Differences

- ◆ IFRS tends to be simpler in its accounting and disclosure requirements; some people say it is more “principles-based.” GAAP is more detailed; some people say it is more “rules-based.”
- ◆ The internal control standards applicable to Sarbanes-Oxley (SOX) apply only to large public companies listed on U.S. exchanges. There is continuing debate as to whether non-U.S. companies should have to comply with this extra layer of regulation.



# A Look at IFRS

---

## LOOKING TO THE FUTURE

Both the IASB and the FASB are hard at work developing standards that will lead to the elimination of major differences in the way certain transactions are accounted for and reported.



# A Look at IFRS

---

## IFRS Practice

Which of the following is **not** a reason why a single set of high-quality international accounting standards would be beneficial?

- a) Mergers and acquisition activity.
- b) Financial markets.
- c) Multinational corporations.
- ➡ d) GAAP is widely considered to be a superior reporting system.



# A Look at IFRS

---

## IFRS Practice

The Sarbanes-Oxley Act determines:

- a) international tax regulations.
- b) internal control standards as enforced by the IASB.
- ➔ c) internal control standards of U.S. publicly traded companies.
- d) U.S. tax regulations.



# A Look at IFRS

---

## IFRS Practice

IFRS is considered to be more:

- ➔
- a) principles-based and less rules-based than GAAP.
  - b) rules-based and less principles-based than GAAP.
  - c) detailed than GAAP.
  - d) None of the above.

# COPYRIGHT

---

“Copyright © 2016 John Wiley & Sons, Inc. All rights reserved. Reproduction or translation of this work beyond that permitted in Section 117 of the 1976 United States Copyright Act without the express written permission of the copyright owner is unlawful. Request for further information should be addressed to the Permissions Department, John Wiley & Sons, Inc. The purchaser may make back-up copies for his/her own use only and not for distribution or resale. The Publisher assumes no responsibility for errors, omissions, or damages, caused by the use of these programs or from the use of the information contained herein.”

# 2

WILEY

---

## A Further Look at Financial Statements

Kimmel • Weygandt • Kieso  
Accounting, Sixth Edition

# CHAPTER OUTLINE

## LEARNING OBJECTIVES

**1**

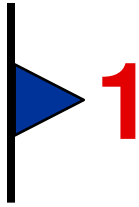
Identify the sections of a classified balance sheet.

**2**

Use ratios to evaluate a company's profitability, liquidity, and solvency.

**3**

Discuss financial reporting concepts.



## Identify the sections of a classified balance sheet.

- ◆ Presents a snapshot at a **point in time**.
- ◆ To improve understanding, companies group similar assets and similar liabilities together.

### Standard Classifications

| <b>Assets</b>                  | <b>Liabilities and Stockholders' Equity</b> |
|--------------------------------|---------------------------------------------|
| Current assets                 | Current liabilities                         |
| Long-term investments          | Long-term liabilities                       |
| Property, plant, and equipment | Stockholders' equity                        |
| Intangible assets              |                                             |

**ILLUSTRATION 2-1**

Standard balance sheet classifications

# FRANKLIN CORPORATION

Balance Sheet  
October 31, 2017

**ILLUSTRATION 2-2**  
Classified balance sheet

## Assets

### Current assets

|                      |          |          |
|----------------------|----------|----------|
| Cash                 | \$ 6,600 |          |
| Debt investments     | 2,000    |          |
| Accounts receivable  | 7,000    |          |
| Notes receivable     | 1,000    |          |
| Inventory            | 3,000    |          |
| Supplies             | 2,100    |          |
| Prepaid insurance    | 400      |          |
|                      | <hr/>    |          |
| Total current assets |          | \$22,100 |

### Long-term investments

|                           |       |       |
|---------------------------|-------|-------|
| Stock investments         | 5,200 |       |
| Investment in real estate | 2,000 | 7,200 |
|                           | <hr/> |       |

### Property, plant, and equipment

|                                          |          |        |
|------------------------------------------|----------|--------|
| Land                                     | 10,000   |        |
| Equipment                                | \$24,000 |        |
| Less: Accumulated depreciation—equipment | 5,000    | 19,000 |
|                                          | <hr/>    | <hr/>  |
|                                          |          | 29,000 |

### Intangible assets

|         |  |       |
|---------|--|-------|
| Patents |  | 3,100 |
|         |  | <hr/> |

|              |  |             |
|--------------|--|-------------|
| Total assets |  | <hr/> <hr/> |
|              |  | \$61,400    |

# FRANKLIN CORPORATION

Balance Sheet  
October 31, 2017

**ILLUSTRATION 2-2**  
Classified balance sheet

## Liabilities and Stockholders' Equity

### Current liabilities

|                            |          |          |
|----------------------------|----------|----------|
| Notes payable              | \$11,000 |          |
| Accounts payable           | 2,100    |          |
| Unearned sales revenue     | 900      |          |
| Salaries and wages payable | 1,600    |          |
| Interest payable           | 450      |          |
|                            | <hr/>    |          |
| Total current liabilities  |          | \$16,050 |

### Long-term liabilities

|                             |        |        |
|-----------------------------|--------|--------|
| Mortgage payable            | 10,000 |        |
| Notes payable               | 1,300  |        |
|                             | <hr/>  |        |
| Total long-term liabilities |        | 11,300 |
|                             |        | <hr/>  |
| Total liabilities           |        | 27,350 |

### Stockholders' equity

|                                            |        |          |
|--------------------------------------------|--------|----------|
| Common stock                               | 14,000 |          |
| Retained earnings                          | 20,050 |          |
|                                            | <hr/>  |          |
| Total stockholders' equity                 |        | 34,050   |
|                                            |        | <hr/>    |
| Total liabilities and stockholders' equity |        | \$61,400 |
|                                            |        | <hr/>    |

# THE CLASSIFIED BALANCE SHEET

---

## Current Assets

- ◆ Assets that a company expects to convert to cash or use up **within one year** or the **operating cycle**, whichever is **longer**.
- ◆ **Operating cycle** is the average time it takes from the purchase of inventory, to the sale of goods, and then to the collection of cash from customers.
- ◆ **Common types** of current assets are (1) cash, (2) investments, (3) receivables, (4) inventories, and (5) prepaid expenses.

# THE CLASSIFIED BALANCE SHEET

## Current Assets

Illustration 2-3  
Current assets section

| Real World                                |                       |
|-------------------------------------------|-----------------------|
| SOUTHWEST AIRLINES CO.                    |                       |
| Balance Sheet (partial)<br>(in millions)  |                       |
| <b>Current assets</b>                     |                       |
| Cash and cash equivalents                 | \$1,355               |
| Short-term investments                    | 1,797                 |
| Accounts receivable                       | 419                   |
| Inventories                               | 467                   |
| Prepaid expenses and other current assets | 418                   |
| Total current assets                      | <u><u>\$4,456</u></u> |

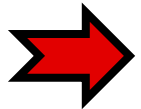
Companies list current asset accounts in the order they expect to convert them into cash.

# THE CLASSIFIED BALANCE SHEET

---

## Review Question

Cash, and other resources that are reasonably expected to be realized in cash or sold or consumed in the business within one year or the operating cycle, are called:



- a. Current assets.
- b. Intangible assets.
- c. Long-term investments.
- d. Property, plant, and equipment.

# THE CLASSIFIED BALANCE SHEET

## Long-Term Investments

- ◆ **Investments in stocks and bonds** of other corporations that are held for more than one year.
- ◆ **Long-term assets** such as land or buildings that a company is **not currently** using in its operating activities.
- ◆ **Long-term notes receivable.**

ILLUSTRATION 2-4  
Long-term investments section

| GOOGLE INC.<br>Balance Sheet (partial)<br>(in millions) |         |
|---------------------------------------------------------|---------|
| Long-term investments                                   |         |
| Non-marketable equity investments                       | \$1,469 |

# THE CLASSIFIED BALANCE SHEET

---

## Property, Plant, and Equipment

- ◆ Long useful lives.
- ◆ Currently used in operations.
- ◆ Includes land, buildings, equipment, delivery vehicles, and furniture.
- ◆ **Depreciation** - allocating the cost of assets to a number of years.
- ◆ **Accumulated depreciation** - total amount of depreciation expensed thus far in the asset's life.

### Alternative Terminology

Property, plant, and equipment is sometimes called fixed assets or plant assets.

# Property, Plant, and Equipment

Real  
World

## TESLA MOTORS, INC.

Balance Sheet (partial)  
(in thousands)

### Property, plant, and equipment

|                                                 |                          |
|-------------------------------------------------|--------------------------|
| Machinery, equipment and office furniture       | \$ 322,394               |
| Tooling                                         | 230,385                  |
| Leasehold improvements                          | 94,763                   |
| Building and building improvements              | 67,707                   |
| Land                                            | 45,020                   |
| Computer equipment and software                 | 42,073                   |
| Construction in progress                        | 76,294                   |
|                                                 | <u>878,636</u>           |
| Less: Accumulated depreciation and amortization | <u>(140,142)</u>         |
| Total                                           | <u><u>\$ 738,494</u></u> |

### ILLUSTRATION 2-5

Property, plant, and equipment section

# THE CLASSIFIED BALANCE SHEET

---

## Intangible Assets

- ◆ Assets that do not have physical substance.
- ◆ Includes goodwill, patents, copyrights, and trademarks or trade names.

### ▼ Helpful Hint

Sometimes intangible assets are reported under a broader heading called “Other assets.”

# THE CLASSIFIED BALANCE SHEET

## Intangible Assets

ILLUSTRATION 2-6  
Intangible assets section

Real  
World

### THE WALT DISNEY COMPANY

Balance Sheet (partial)  
(in millions)

#### Intangible assets and goodwill

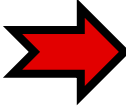
|                                                |                |
|------------------------------------------------|----------------|
| Character/franchise intangibles and copyrights | \$ 5,830       |
| Other amortizable intangible assets            | 903            |
| Accumulated amortization                       | <u>(1,204)</u> |
| Net amortizable intangible assets              | 5,529          |
| FCC licenses                                   | 667            |
| Trademarks                                     | 1,218          |
| Other indefinite lived intangible assets       | <u>20</u>      |
|                                                | 7,434          |
| Goodwill                                       | <u>27,881</u>  |
|                                                | \$35,315       |

# THE CLASSIFIED BALANCE SHEET

---

## Review Question

Patents and copyrights are

- a. Current assets.
-  b. Intangible assets.
- c. Long-term investments.
- d. Property, plant, and equipment.

**DO IT!**

**1a**

## Assets Section of Classified Balance Sheet

Baxter Hoffman recently received the following information related to Hoffman Corporation's December 31, 2017, balance sheet.

|                     |          |                           |         |
|---------------------|----------|---------------------------|---------|
| Prepaid insurance   | \$ 2,300 | Inventory                 | \$3,400 |
| Cash                | 800      | Accumulated depreciation— |         |
| Equipment           | 10,700   | equipment                 | 2,700   |
| Accounts receivable | 1,100    |                           |         |

Prepare the assets section of Hoffman Corporation's classified balance sheet.

Prepare the assets section of the classified balance sheet.

|                     |          |                           |         |
|---------------------|----------|---------------------------|---------|
| Prepaid insurance   | \$ 2,300 | Inventory                 | \$3,400 |
| Cash                | 800      | Accumulated depreciation— |         |
| Equipment           | 10,700   | equipment                 | 2,700   |
| Accounts receivable | 1,100    |                           |         |

Balance Sheet (partial)  
December 31, 2017

Assets

Current assets

Total current assets

Property, plant, and equipment

Total assets

# THE CLASSIFIED BALANCE SHEET

---

## Current Liabilities

- ◆ Obligations the company is to **pay within the next year or operating cycle, whichever is longer.**
- ◆ **Common examples** are accounts payable, salaries and wages payable, notes payable, interest payable, and income taxes payable.
- ◆ Also included as **current liabilities are current maturities of long-term obligations**—payments to be made within the next year on long-term obligations.

# THE CLASSIFIED BALANCE SHEET

## Current Liabilities

| GOOGLE INC.                                    |            |
|------------------------------------------------|------------|
| Balance Sheet (partial)                        |            |
| (in millions)                                  |            |
| <b>Real World</b>                              |            |
| <b>Current liabilities</b>                     |            |
| Accounts payable                               | \$ 2,012   |
| Short-term debt                                | 2,549      |
| Accrued compensation and benefits              | 2,239      |
| Accrued expenses and other current liabilities | 7,297      |
| Income taxes payable, net                      | <u>240</u> |
| Total current liabilities                      | \$14,337   |

**ILLUSTRATION 2-7**  
Current liabilities section

# THE CLASSIFIED BALANCE SHEET

## Long-Term Liabilities

- ◆ Obligations a company expects to pay after one year.
- ◆ Include bonds payable, mortgages payable, long-term notes payable, lease liabilities, and pension liabilities.

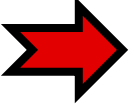
| NIKE, INC.                      |              |
|---------------------------------|--------------|
| Balance Sheet (partial)         |              |
| (in millions)                   |              |
| <b>Real World</b>               |              |
| <b>Long-term liabilities</b>    |              |
| Bonds payable                   | \$1,106      |
| Notes payable                   | 51           |
| Deferred income taxes and other | <u>1,544</u> |
| Total long-term liabilities     | \$2,701      |

# THE CLASSIFIED BALANCE SHEET

---

## Review Question

Which of the following is **not** a long-term liability?

- a. Bonds payable.
-  b. Current maturities of long-term debt.
- c. Long-term notes payable.
- d. Mortgages payable.

# THE CLASSIFIED BALANCE SHEET

---

## Stockholders' Equity

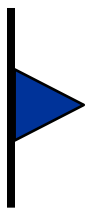
- ◆ **Common stock** - investments of assets into the business by the stockholders.
- ◆ **Retained earnings** - income retained for use in the business

### Stockholders' Equity section for Franklin Corporation

|                                            |               |                        |
|--------------------------------------------|---------------|------------------------|
| Stockholders' equity                       |               |                        |
| Common stock                               | 14,000        |                        |
| Retained earnings                          | <u>20,050</u> |                        |
| Total stockholders' equity                 |               | <u>34,050</u>          |
| Total liabilities and stockholders' equity |               | <u><u>\$61,400</u></u> |

Illustration 2-2

**DO IT!**



**1b**

## Balance Sheet Classifications

Match each of the items to its proper balance sheet classification, shown below. If the item would not appear on a balance sheet, use “NA.”

Current assets (CA)

Long-term investments (LTI)

Property, plant, and equipment (PPE)

Intangible assets (IA)

Current liabilities (CL)

Long-term liabilities (LTL)

Stockholders' equity (SE)

### Solution

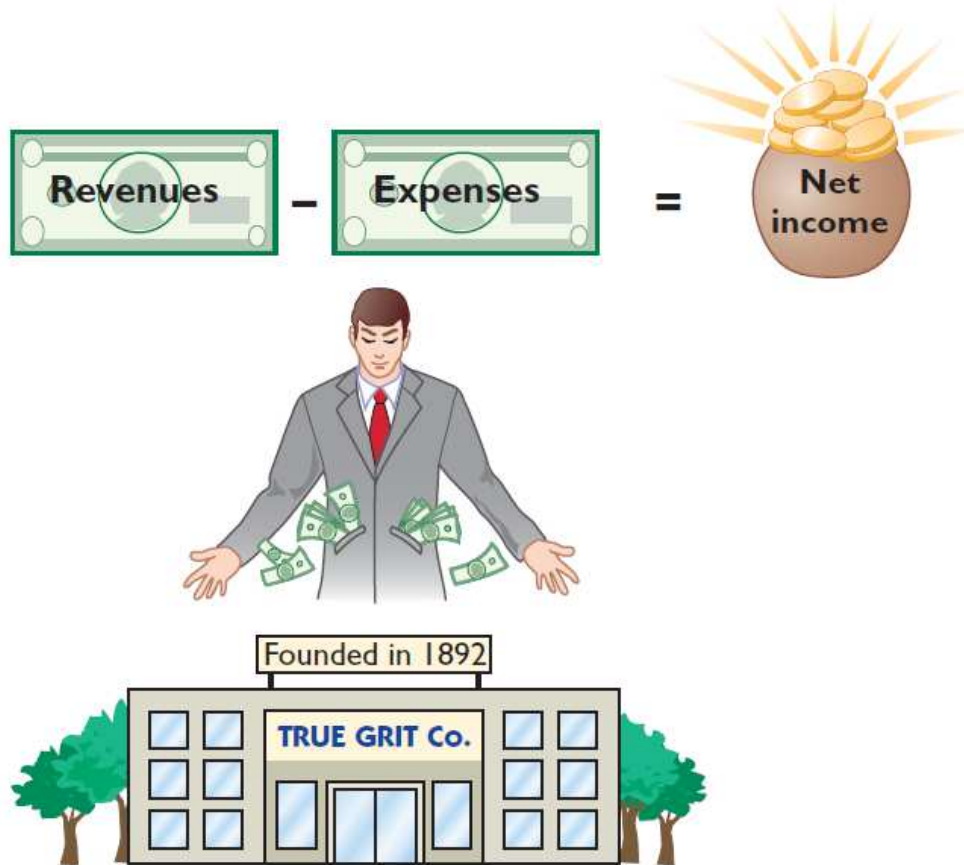
|                      |                                      |
|----------------------|--------------------------------------|
| <input type="text"/> | Salaries and wages payable           |
| <input type="text"/> | Service revenue                      |
| <input type="text"/> | Interest payable                     |
| <input type="text"/> | Goodwill                             |
| <input type="text"/> | Depreciation expense                 |
| <input type="text"/> | Mortgage payable<br>(due in 3 years) |

|                      |                               |
|----------------------|-------------------------------|
| <input type="text"/> | Investment in real estate     |
| <input type="text"/> | Equipment                     |
| <input type="text"/> | Accumulated depreciation      |
| <input type="text"/> | Debt investments (short-term) |
| <input type="text"/> | Retained earnings             |
| <input type="text"/> | Unearned service revenue      |

## Ratio Analysis

- ◆ **Ratio analysis** expresses the relationship among selected items of financial statement data.
- ◆ A **ratio** expresses the mathematical relationship between one quantity and another.
- ◆ A single ratio by itself is not very meaningful.

# RATIO ANALYSIS



## Profitability Ratios

Measure the income or operating success of a company for a given period of time

## Liquidity Ratios

Measure short-term ability of the company to pay its maturing obligations and to meet unexpected needs for cash

## Solvency Ratios

Measure the ability of the company to survive over a long period of time

**ILLUSTRATION 2-9**

Financial ratio classifications

# USING THE INCOME STATEMENT



## BEST BUY CO., INC.

### Income Statements

For the 12 Months Ended February 1, 2014,  
and 11 Months Ended February 2, 2013 (in millions)

|                                                            | <u>2014</u>          | <u>2013</u>            |
|------------------------------------------------------------|----------------------|------------------------|
| <b>Revenues</b>                                            |                      |                        |
| Net sales and other revenue                                | <u>\$42,410</u>      | <u>\$39,827</u>        |
| <b>Expenses</b>                                            |                      |                        |
| Cost of goods sold                                         | 32,720               | 30,528                 |
| Selling, general, and<br>administrative expenses and other | 8,760                | 9,471                  |
| Income tax expense                                         | <u>398</u>           | <u>269</u>             |
| Total expenses                                             | <u>41,878</u>        | <u>40,268</u>          |
| <b>Net income/(loss)</b>                                   | <u><u>\$ 532</u></u> | <u><u>\$ (441)</u></u> |

**ILLUSTRATION 2-10**  
**Best Buy's income statement**

# Earnings per Share

## Profitability Ratio

**Illustration: Earnings per share (EPS)** measures the net income earned on each share of common stock.

| <u>(in millions)</u>                    | <u>2014</u> | <u>2013</u> |
|-----------------------------------------|-------------|-------------|
| Net income (loss)                       | \$532       | \$(441)     |
| Preferred dividends                     | –0–         | –0–         |
| Shares outstanding at beginning of year | 338         | 341         |
| Shares outstanding at end of year       | 347         | 338         |

$$\text{Earnings per Share} = \frac{\text{Net Income} - \text{Preferred Dividends}}{\text{Weighted-Average Common Shares Outstanding}}$$

(\$ and shares in millions)

2014

2013

Earnings per share

\_\_\_\_\_ =

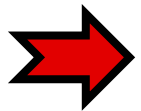
\_\_\_\_\_ =

# USING THE INCOME STATEMENT

---

## Review Question

For 2017 Stoneland Corporation reported net income \$26,000; net sales \$400,000; and average shares outstanding 6,000. There were preferred stock dividends of \$2,000. What was the 2017 earnings per share?



a. \$4.00

b. \$0.06

c. \$16.67

d. \$66.67

$$\frac{\$26,000 - \$2,000}{6,000} = \$4.00$$

# USING A CLASSIFIED BALANCE SHEET

**Illustration 2-12**  
Best Buy's  
balance sheet

| <div> <div>Real World</div> <div> <b>BEST BUY CO., INC.</b><br/>           Balance Sheets<br/>           (in millions)         </div> </div> |                         |                         |
|----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------------------|
| <u>Assets</u>                                                                                                                                | <u>February 1, 2014</u> | <u>February 2, 2013</u> |
| Current assets                                                                                                                               |                         |                         |
| Cash and cash equivalents                                                                                                                    | \$ 2,678                | \$ 1,826                |
| Short-term investments                                                                                                                       | 223                     | 0                       |
| Receivables                                                                                                                                  | 1,308                   | 2,704                   |
| Merchandise inventories                                                                                                                      | 5,376                   | 6,571                   |
| Other current assets                                                                                                                         | 900                     | 946                     |
| Total current assets                                                                                                                         | <u>10,485</u>           | <u>12,047</u>           |
| Property and equipment                                                                                                                       | 7,575                   | 8,375                   |
| Less: Accumulated depreciation                                                                                                               | <u>4,977</u>            | <u>5,105</u>            |
| Net property and equipment                                                                                                                   | <u>2,598</u>            | <u>3,270</u>            |
| Other assets                                                                                                                                 | 930                     | 1,470                   |
| Total assets                                                                                                                                 | <u><u>\$14,013</u></u>  | <u><u>\$16,787</u></u>  |
| <u>Liabilities and Stockholders' Equity</u>                                                                                                  |                         |                         |
| Current liabilities                                                                                                                          |                         |                         |
| Accounts payable                                                                                                                             | \$ 5,122                | \$ 6,951                |
| Accrued liabilities                                                                                                                          | 873                     | 1,188                   |
| Accrued income taxes                                                                                                                         | 147                     | 129                     |
| Accrued compensation payable                                                                                                                 | 444                     | 520                     |
| Other current liabilities                                                                                                                    | 850                     | 2,022                   |
| Total current liabilities                                                                                                                    | <u>7,436</u>            | <u>10,810</u>           |
| Long-term liabilities                                                                                                                        |                         |                         |
| Long-term debt                                                                                                                               | 976                     | 1,109                   |
| Other long-term liabilities                                                                                                                  | <u>1,612</u>            | <u>1,153</u>            |
| Total long-term liabilities                                                                                                                  | <u>2,588</u>            | <u>2,262</u>            |
| Total liabilities                                                                                                                            | <u>10,024</u>           | <u>13,072</u>           |
| Stockholders' equity                                                                                                                         |                         |                         |
| Common stock                                                                                                                                 | 335                     | 88                      |
| Retained earnings and other                                                                                                                  | <u>3,654</u>            | <u>3,627</u>            |
| Total stockholders' equity                                                                                                                   | <u>3,989</u>            | <u>3,715</u>            |
| Total liabilities and stockholders' equity                                                                                                   | <u><u>\$14,013</u></u>  | <u><u>\$16,787</u></u>  |

# USING A CLASSIFIED BALANCE SHEET

---

**Liquidity**—the ability to pay obligations expected to become due within the next year or operating cycle.

**Working capital** is the difference between the amounts of current assets and current liabilities.

$$\text{Working Capital} = \text{Current Assets} - \text{Current Liabilities}$$

## ILLUSTRATION 2-13

Working capital

Best Buy had working capital in 2014 of \$3,049 million (\$10,485 million – \$7,436 million).

# USING A CLASSIFIED BALANCE SHEET

**Liquidity ratios** measure the short-term ability to pay maturing obligations and to meet unexpected needs for cash.

| Current Ratio = $\frac{\text{Current Assets}}{\text{Current Liabilities}}$ |        |         |                     |
|----------------------------------------------------------------------------|--------|---------|---------------------|
| Best Buy<br>(\$ in millions)                                               |        | hhgregg | Industry<br>Average |
| 2014                                                                       | 2013   | 2014    | 2014                |
| $\frac{\$10,485}{\$7,436} = 1.41:1$                                        | 1.11:1 | 1.68:1  | .88:1               |

**ILLUSTRATION 2-14**  
Current ratio

For every dollar of current liabilities, Best Buy has \$1.41 of current assets.

# ACCOUNTING ACROSS THE ORGANIZATION

## Can a Company Be Too Liquid?

There actually is a point where a company can be too liquid—that is, it can have too much working capital. While it is important to be liquid enough to be able to pay short-term bills as they come due, a company does not want to tie up its cash in extra inventory or receivables that are not earning the company money. By one estimate from the **REL Consultancy Group**, the thousand largest U.S. companies had cumulative excess working capital of \$1.017 trillion in a recent year. This was an 18% increase, which REL said represented a “deterioration in the management of operations.” Given that managers throughout a company are interested in improving profitability, it is clear that they should have an eye toward managing working capital. They need to aim for a “Goldilocks solution”—not too much, not too little, but just right.

*Source:* Maxwell Murphy, “The Big Number,” *Wall Street Journal* (November 9, 2011).

# USING A CLASSIFIED BALANCE SHEET

---

**Solvency**—the ability to pay interest as it comes due and to repay the balance of a debt due at its maturity.

**Solvency ratios** measure the ability of the company to survive over a long period of time.

▼ **Helpful Hint** Some users evaluate solvency using a ratio of liabilities divided by stockholders' equity. The higher this “debt to equity” ratio, the lower is a company's solvency.

# USING A CLASSIFIED BALANCE SHEET

**Debt to assets ratio** measures the percentage of total financing provided by creditors rather than stockholders.

$$\text{Debt to Assets Ratio} = \frac{\text{Total Liabilities}}{\text{Total Assets}}$$

| Best Buy<br>(\$ in millions)       |      | hhgregg | Industry<br>Average |
|------------------------------------|------|---------|---------------------|
| 2014                               | 2013 | 2014    | 2014                |
| $\frac{\$10,024}{\$14,013} = 72\%$ | 78%  | 51%     | 88%                 |

**ILLUSTRATION 2-15**  
Debt to assets ratio

The 2014 ratio means that every dollar of assets was financed by 72 cents of debt.

## INVESTOR INSIGHT

### When Debt Is Good

Debt financing differs greatly across industries and companies. Here are some debt to assets ratios for selected companies in a recent year:

|                | <b>Debt to<br/>Assets Ratio</b> |
|----------------|---------------------------------|
| Google         | 23%                             |
| Nike           | 41%                             |
| Microsoft      | 48%                             |
| ExxonMobil     | 48%                             |
| General Motors | 74%                             |

# USING THE STATEMENT OF CASH FLOWS

---

In the Statement of Cash Flows, **cash provided by operating activities** fails to take into account that a company must invest in new property, plant, and equipment and must maintain dividends at current levels to satisfy investors.

**Free cash flow** describes the net cash provided by operating activities after adjusting for capital expenditures and dividends paid.

$$\text{Free Cash Flow} = \text{Net Cash Provided by Operating Activities} - \text{Capital Expenditures} - \text{Cash Dividends}$$

**ILLUSTRATION 2-16**  
Free cash flow

# USING THE STATEMENT OF CASH FLOWS

---

**Illustration:** MPC produced and sold 10,000 personal computers this year. It reported \$100,000 cash provided by operating activities. In order to maintain production at 10,000 computers, MPC invested \$15,000 in equipment. It chose to pay \$5,000 in dividends. Calculate free cash flow.

|                                                      |                         |
|------------------------------------------------------|-------------------------|
| Cash provided by operating activities                | \$100,000               |
| Less: Expenditures on property, plant, and equipment | -15,000                 |
| Dividends paid                                       | 5,000                   |
| Free cash flow                                       | <u><u>\$ 80,000</u></u> |

**DO IT!****2**

## Ratio Analysis

The following information is available for Ozone Inc.

|                                           | <u>2017</u> | <u>2016</u> |
|-------------------------------------------|-------------|-------------|
| Current assets                            | \$ 88,000   | \$ 60,800   |
| Total assets                              | 400,000     | 341,000     |
| Current liabilities                       | 40,000      | 38,000      |
| Total liabilities                         | 120,000     | 150,000     |
| Net income                                | 100,000     | 50,000      |
| Net cash provided by operating activities | 110,000     | 70,000      |
| Preferred dividends                       | 10,000      | 10,000      |
| Common dividends                          | 5,000       | 2,500       |
| Expenditures on PP&E                      | 45,000      | 20,000      |
| Shares outstanding at beginning of year   | 60,000      | 40,000      |
| Shares outstanding at end of year         | 120,000     | 60,000      |

**DO IT!**

**2**

## Ratio Analysis

- (a) **Compute earnings per share** for 2017 and 2016 for Ozone. Ozone's primary competitor, Frost Corporation, had earnings per share of \$2 in 2017.

### SOLUTION

**Earnings per share**

**2017**

\_\_\_\_\_  
\_\_\_\_\_  
=

**2016**

\_\_\_\_\_  
\_\_\_\_\_  
=

**DO IT!**

**2**

## Ratio Analysis

(b) Compute the **current ratio** and **debt to assets ratio** for 2017.

### SOLUTION

|                      | 2017                    | 2016                                 |
|----------------------|-------------------------|--------------------------------------|
| Current Ratio        | $\frac{\quad}{\quad} =$ | $\frac{\$60,800}{\$38,000} = 1.60:1$ |
| Debt to Assets ratio | $\frac{\quad}{\quad} =$ | $\frac{\$150,000}{\$341,000} = 44\%$ |

**DO IT!**

**2**

## Ratio Analysis

**(b) Compute free cash flow for each year.**

### SOLUTION

|                                              | <u>2017</u>      | <u>2016</u>      |
|----------------------------------------------|------------------|------------------|
| Net cash provided by<br>operating activities | \$110,000        | \$70,000         |
| Expenditures on PP&E                         | – 45,000         | – 20,000         |
| Preferred dividend                           | – 10,000         | – 10,000         |
| Common dividends                             | – 5,000          | – 2,500          |
|                                              | <u>\$ 50,000</u> | <u>\$ 37,500</u> |

## **The Standard-Setting Environment**

**Generally Accepted Accounting Principles (GAAP)** - A set of rules and practices, having substantial authoritative support, that the accounting profession recognizes as a general guide for financial reporting purposes.

**Standard-setting bodies** determine these guidelines:

- ▶ Securities and Exchange Commission (**SEC**)
- ▶ Financial Accounting Standards Board (**FASB**)
- ▶ International Accounting Standards Board (**IASB**)
- ▶ Public Company Accounting Oversight Board (**PCAOB**)

**International Note**  
Over 115 countries use international standards (called IFRS).

# THE STANDARD-SETTING ENVIRONMENT

---

## Review Question

Generally accepted accounting principles are:

- 
- a. a set of standards and rules that are recognized as a general guide for financial reporting.
  - b. usually established by the Internal Revenue Service.
  - c. the guidelines used to resolve ethical dilemmas.
  - d. fundamental truths that can be derived from the laws of nature.

# INTERNATIONAL INSIGHT

## The Korean Discount

If you think that accounting standards don't matter, consider recent events in South Korea. For many years, international investors complained that the financial reports of South Korean companies were inadequate and inaccurate. Accounting practices there often resulted in huge differences between stated revenues and actual revenues. Because investors did not have faith in the accuracy of the numbers, they were unwilling to pay as much for the shares of these companies relative to shares of comparable companies in different countries. This difference in share price was often referred to as the "Korean discount." In response, Korean regulators decided that companies would have to comply with international accounting standards. This change was motivated by a desire to "make the country's businesses more transparent" in order to build investor confidence and spur economic growth. Many other Asian countries, including China, India, Japan, and Hong Kong, have also decided either to adopt international standards or to create standards that are based on the international standards.

*Source:* Evan Ramstad, "End to 'Korea Discount'?" *Wall Street Journal* (March 16, 2007).

# QUALITIES OF USEFUL INFORMATION

---

**According to the FASB**, useful information should possess two fundamental qualities, **relevance** and **faithful representation**.

- ◆ **Relevance** Accounting information has **relevance** if it would make a difference in a business decision. Information is considered relevant if it provides information that has **predictive value**, that is, helps provide accurate expectations about the future, and has **confirmatory value**, that is, confirms or corrects prior expectations. **Materiality** is a company-specific aspect of relevance. An item is material when its **size** makes it likely to influence the decision of an investor or creditor.

# QUALITIES OF USEFUL INFORMATION

---

**According to the FASB**, useful information should possess two fundamental qualities, **relevance** and **faithful representation**.

- ◆ **Faithful Representation** **Faithful representation** means that information accurately depicts what really happened. To provide a faithful representation, information must be **complete** (nothing important has been omitted), **neutral** (is not biased toward one position or another), and **free from error**.

# QUALITIES OF USEFUL INFORMATION

---

## Enhancing Qualities

### **Comparability**

results when different companies use the same accounting principles.

Information is

### **verifiable**

if independent observers, using the same methods, obtain similar results.

Information has the quality of

### **understandability**

if it is presented in a clear and concise fashion.

### **Consistency**

means that a company uses the same accounting principles and methods from year to year.

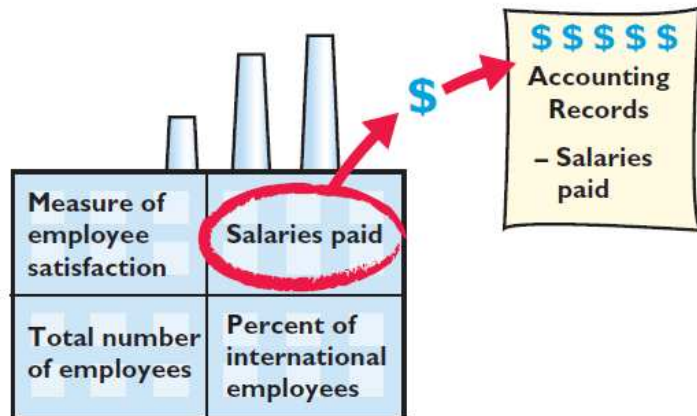
For accounting information to have relevance, it must be **timely**.

# ACCOUNTING ACROSS THE ORGANIZATION

## What Do These Companies Have in Common?

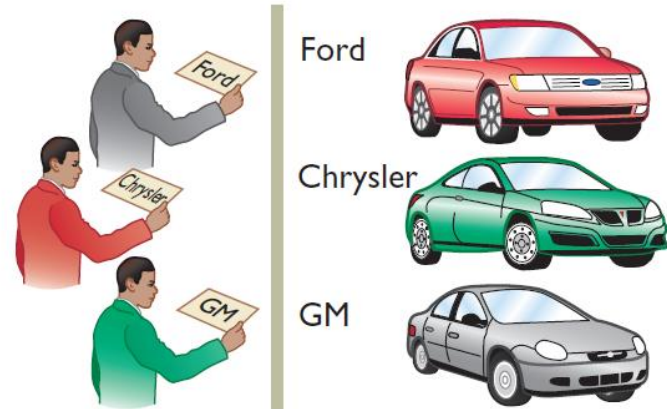
Another issue related to comparability is the accounting time period. An accounting period that is one-year long is called a **fiscal year**. But a fiscal year need not match the calendar year. For example, a company could end its fiscal year on April 30 rather than on December 31. Why do companies choose the particular year-ends that they do? For example, why doesn't every company use December 31 as its accounting year-end? Many companies choose to end their accounting year when inventory or operations are at a low point. This is advantageous because compiling accounting information requires much time and effort by managers, so they would rather do it when they aren't as busy operating the business. Also, inventory is easier and less costly to count when its volume is low. Some companies whose year-ends differ from December 31 are Delta Air Lines, June 30; The Walt Disney Company, September 30; and Dunkin' Donuts, Inc., October 31. In the notes to its financial statements, Best Buy states that its accounting year-end is the Saturday nearest the end of January.

# ASSUMPTIONS IN FINANCIAL REPORTING



## Monetary Unit

Requires that only those things that can be expressed in money are included in the accounting records.



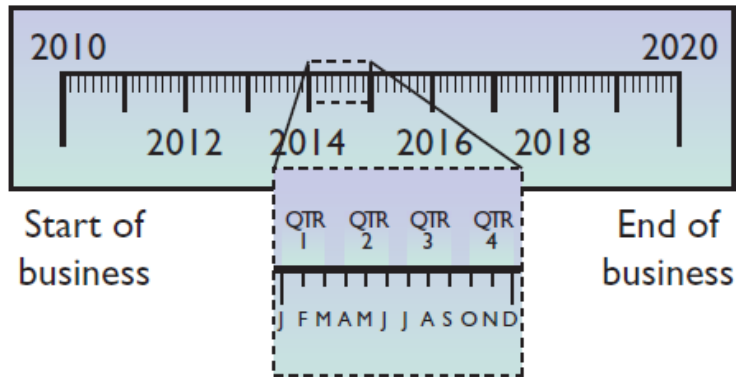
## Economic Entity

States that every economic entity can be separately identified and accounted for.

ILLUSTRATION 2-19

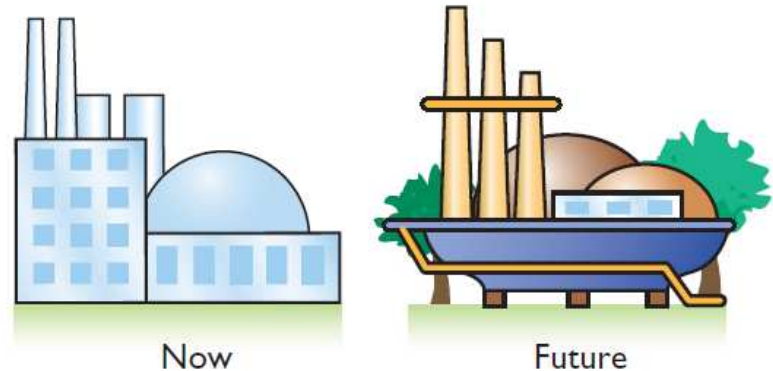
Key assumptions in financial reporting

# ASSUMPTIONS IN FINANCIAL REPORTING



## Periodicity

States that the life of a business can be divided into artificial time periods.



## Going Concern

The business will remain in operation for the foreseeable future.

# PRINCIPLES IN FINANCIAL REPORTING

---

## Measurement Principles

### Historical Cost

Or cost principle, dictates that companies record assets at their cost.

### Fair Value

Indicates that assets and liabilities should be reported at fair value (the price received to sell an asset or settle a liability).

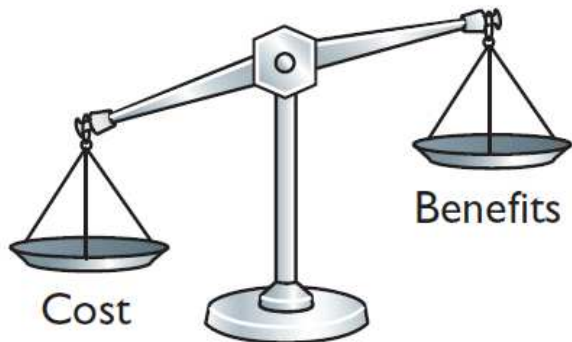
## Full Disclosure Principle

Requires that companies disclose all circumstances and events that would make a difference to financial statement users.

# PRINCIPLES IN FINANCIAL REPORTING

---

## Cost Constraint



Accounting standard-setters weigh the cost that companies will incur to provide the information against the benefit that financial statement users will gain from having the information available.

**DO IT!**

**3**

## Financial Accounting Concepts and Principles

The following items guide the FASB when it creates accounting standards.

Relevance

Faithful representation

Comparability

Consistency

Monetary unit assumption

Economic entity assumption

Periodicity assumption

Going concern assumption

Historical cost principle

Full disclosure principle

Materiality

Match each item above with a description below.

1. Ability to easily evaluate one company's results relative to another's.
2. Belief that a company will continue to operate for the foreseeable future.
3. The judgment concerning whether an item is large enough to matter to decision-makers.

**Comparability**

**Going concern**

**Materiality**

**DO IT!**

**3**

## Financial Accounting Concepts and Principles

The following items guide the FASB when it creates accounting standards.

Relevance

Faithful representation

Comparability

Consistency

Monetary unit assumption

Economic entity assumption

Periodicity assumption

Going concern assumption

Historical cost principle

Full disclosure principle

Materiality

Match each item above with a description below.

4. The reporting of all information that would make a difference to financial statement users.

**Full disclosure**

5. The practice of preparing financial statements at regular intervals.

**Periodicity**

6. The quality of information that indicates the information makes a difference in a decision.

**Relevance**

**DO IT!**

**3**

## Financial Accounting Concepts and Principles

The following items guide the FASB when it creates accounting standards.

Relevance

Faithful representation

Comparability

Consistency

Monetary unit assumption

Economic entity assumption

Periodicity assumption

Going concern assumption

Historical cost principle

Full disclosure principle

Materiality

Match each item above with a description below.

7. Belief that items should be reported on the balance sheet at the price that was paid to acquire the item.

**Historical cost**

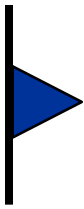
8. A company's use of the same accounting principles and methods from year to year.

**Consistency**

9. Tracing accounting events to particular companies.

**Economic entity**

**DO IT!**



**3**

## Financial Accounting Concepts and Principles

The following items guide the FASB when it creates accounting standards.

Relevance

Faithful representation

Comparability

Consistency

Monetary unit assumption

Economic entity assumption

Periodicity assumption

Going concern assumption

Historical cost principle

Full disclosure principle

Materiality

Match each item above with a description below.

10. The desire to minimize errors and bias in financial statements.

**Faithful  
representation**

11. Reporting only those things that can be measured in dollars.

**Monetary unit**

# THE STANDARD-SETTING ENVIRONMENT

---

## Review Question

What is the primary criterion by which accounting information can be judged?

- a. Consistency.
- b. Predictive value.
-  c. Usefulness for decision making.
- d. Comparability.



# A Look at IFRS

## LEARNING OBJECTIVE

▶ **4**

**Compare the classified balance sheet format under GAAP and IFRS.**

## KEY POINTS

### Similarities

- ◆ IFRS generally requires a classified statement of financial position similar to the classified balance sheet under GAAP.
- ◆ IFRS follows the same guidelines as this textbook for distinguishing between current and noncurrent assets and liabilities.



# A Look at IFRS

## KEY POINTS

### Differences

- ◆ IFRS recommends but does not require the use of the title “statement of financial position” rather than balance sheet.
- ◆ The format of statement of financial position information is often presented differently under IFRS. Although no specific format is required, many companies that follow IFRS present statement of financial position information in this order:
  - Non-current assets
  - Current assets
  - Equity
  - Non-current liabilities
  - Current liabilities



# A Look at IFRS

## KEY POINTS

### Differences

- ◆ Under IFRS, current assets are usually listed in the reverse order of liquidity. For example, under GAAP cash is listed first, but under IFRS it is listed last.
- ◆ IFRS has many differences in terminology from what are shown in your textbook.
- ◆ Both GAAP and IFRS are increasing the use of fair value to report assets. However, at this point IFRS has adopted it more broadly. As examples, under IFRS companies can apply fair value to property, plant, and equipment, and in some cases intangible assets.



# A Look at IFRS

## LOOKING TO THE FUTURE

The IASB and the FASB are working on a project to converge their standards related to financial statement presentation. A key feature of the proposed framework is that each of the statements will be organized in the same format, to separate an entity's financing activities from its operating and investing activities and, further, to separate financing activities into transactions with owners and creditors. Thus, the same classifications used in the statement of financial position would also be used in the income statement and the statement of cash flows. The project has three phases. You can follow the joint financial presentation project at the following link: [http://www.fasb.org/project/-financial\\_statement\\_presentation.shtml](http://www.fasb.org/project/-financial_statement_presentation.shtml).

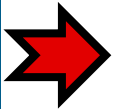


# A Look at IFRS

---

## IFRS Practice

A company has purchased a tract of land and expects to build a production plant on the land in approximately 5 years. During the 5 years before construction, the land will be idle. Under IFRS, the land should be reported as:

- a) land expense.
- b) property, plant, and equipment.
- c) an intangible asset.
-  d) a long-term investment.



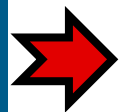
# A Look at IFRS

---

## IFRS Practice

Current assets under IFRS are listed generally:

a) by importance.



b) in the reverse order of their expected conversion to cash.

c) by longevity.

d) alphabetically.



# A Look at IFRS

---

## IFRS Practice

Companies that use IFRS:

- a) may report all their assets on the statement of financial position at fair value.
- b) may offset assets against liabilities and show net assets and net liabilities on their statements of financial position, rather than the underlying detailed line items.
- ➔ c) may report non-current assets before current assets on the statement of financial position.
- d) do not have any guidelines as to what should be reported on the statement of financial position.

# COPYRIGHT

---

“Copyright © 2016 John Wiley & Sons, Inc. All rights reserved. Reproduction or translation of this work beyond that permitted in Section 117 of the 1976 United States Copyright Act without the express written permission of the copyright owner is unlawful. Request for further information should be addressed to the Permissions Department, John Wiley & Sons, Inc. The purchaser may make back-up copies for his/her own use only and not for distribution or resale. The Publisher assumes no responsibility for errors, omissions, or damages, caused by the use of these programs or from the use of the information contained herein.”