

Chapter 10

Stockholders' Equity

REVIEW QUESTIONS

Question 10-1 (LO 10-1)

Most corporations first raise money by selling stock to the founders of the business and their friends and family. As the equity financing needs of the corporation grow, companies prepare a business plan and seek outside investment from “angel” investors and venture capital firms. Angel investors are wealthy individuals in the business community willing to risk investment funds on a promising business venture. Venture capital firms provide additional financing, often in the millions, for a percentage ownership in the company. Many venture capital firms look to invest in promising companies to which they can add value through business contacts, financial expertise, or marketing channels. Most corporations do not consider issuing stock to the general public (going public) until their equity financing needs exceed \$20 million dollars.

Question 10-2 (LO 10-1)

The stock of a publicly held corporation trades on the New York Stock Exchange (NYSE), National Association of Securities Dealers Automated Quotations (NASDAQ), or by over-the-counter (OTC) trading. Examples include Walmart, General Motors, and General Electric.

A privately held corporation does not allow investment by the general public and normally has fewer stockholders. Three of the largest private corporations in the United States are Cargill (agricultural commodities), Koch Industries (oil and gas), and Mars (candy).

Question 10-3 (LO 10-1)

The basic ownership rights of common stockholders are (1) the right to vote, (2) the right to receive dividends, and (3) the right to share in the distribution of assets.

Question 10-4 (LO 10-1)

Sole proprietorships are the most common form of business. However, corporations are larger in terms of total sales, total assets, earnings, or number of employees.

Question 10-5 (LO 10-1)

A corporation offers two primary advantages over sole proprietorships and partnerships. These are (1) limited liability and (2) ability to raise capital and transfer ownership. Because of limited liability, even in the event of bankruptcy, stockholders in a corporation can lose no more than the amount they invested in the company. Because corporations sell ownership interest in the form of shares of stock, ownership rights are easily transferred. An investor can sell his or her ownership interest (shares of stock) at any time and without affecting the structure of the corporation or its operations.

A corporation has two primary disadvantages relative to sole proprietorships and partnerships. These are (1) additional taxes and (2) more paperwork. Corporations have double taxation. Corporate income is taxed once on earnings at the corporate level and again on dividends at the

individual level. Corporations also have more paperwork as federal and state governments impose extensive reporting requirements on the company.

Question 10-6 (LO 10-1)

An LLC or an S Corporation allows a company to enjoy limited liability as a corporation, but avoid the double taxation of traditional corporations.

Question 10-7 (LO 10-2)

Authorized stock is the total number of shares available to sell, stated in the company's articles of incorporation. Issued stock is the number of shares that have been sold to investors. A company usually does not issue all its authorized stock. Outstanding stock is the number of shares held by investors. Issued and outstanding are the same amounts as long as the corporation has not purchased any of its shares. Purchased shares, called treasury stock, are included as part of shares issued, but excluded from shares outstanding.

Question 10-8 (LO 10-2)

One million shares are authorized, 100,000 shares are issued, and 90,000 shares are outstanding.

Question 10-9 (LO 10-2)

Par value is the legal capital per share of stock that's assigned when the corporation is first established. Par value has no relationship to the market value of the common stock. We credit the common stock account for the number of shares issued times the par value per share *and* we credit additional paid-in capital for the portion of the cash proceeds above par value.

Question 10-10 (LO 10-3)

The three potential features of preferred stock are convertible, redeemable, and cumulative. Convertible makes it appear more like stockholders' equity, while redeemable and cumulative make it appear more like long-term liabilities.

Question 10-11 (LO 10-3)

Investors in common stock are the owners of the corporation. Investors in bonds are creditors who have loaned money to the corporation. Preferred stock fits somewhere between common stock and bonds. For example, the risk and expected return are greatest for investments in common stock followed by preferred stock and then bonds. In contrast, preference for payments of interest and dividends are given first to bonds, then preferred stock, and then common stock. Illustration 10-7 provides a summary.

Question 10-12 (LO 10-4)

A company may buy back its own stock to boost under-priced stock. When a company's management feels the market price of its stock is too low, it may attempt to support the price by decreasing the supply of stock in the marketplace. Other reasons why a company might buy back its own stock are to distribute surplus cash in the company without paying dividends, to boost earnings per share, and to offset issuance of shares under stock-based compensation plans.

Question 10-13 (LO 10-4)

When a corporation purchases its own stock, it increases, or debits treasury stock reported in the balance sheet as a reduction in stockholders' equity. When a corporation purchases stock in another

corporation, it increases, or debits an investment account reported in the balance sheet as an increase in assets.

Question 10-14 (LO 10-5)

Many companies that are unprofitable choose not to pay dividends. Management of these companies may instead need to use that cash for strategic purposes to keep the company from bankruptcy. However, many profitable companies also choose not to pay cash dividends. Companies with large expansion plans, called “growth companies,” prefer to reinvest earnings in the growth of the company rather than distribute earnings back to investors in the form of cash dividends.

Investors purchase stock in companies that do not pay dividends because they expect share prices to increase. Investors hope a company’s share price increases and then they can sell the stock for a profit. Profitable companies that reinvest earnings, rather than pay dividends, should see their share price increase.

Question 10-15 (LO 10-5)

The declaration date is the date the board of directors announces the next dividend to be paid. The record date is the date on which a company looks at its records to determine who the stockholders of the company are. Finally, the payment date is the date of the actual cash distribution.

Question 10-16 (LO 10-6)

Total assets, total liabilities, and total stockholders’ equity do not change as a result of a 100% stock dividend or a 2-for-1 stock split.

Question 10-17 (LO 10-6)

Declaration and payment of a cash dividend reduces total assets and total stockholders’ equity. Declaration and payment of a stock dividend has no effect on total assets, total liabilities, and total stockholders’ equity.

Question 10-18 (LO 10-6)

In a 2-for-1 stock split the number of shares outstanding doubles, while the par value and share price drop by one-half.

Question 10-19 (LO 10-7)

The correct order in the stockholders’ equity section of the balance sheet is Preferred Stock, Common Stock, Additional Paid-in Capital, Retained Earnings, and Treasury Stock.

Question 10-20 (LO 10-7)

The stockholders’ equity section of the balance sheet shows the balance in each equity account *at a point in time*. In contrast, the statement of stockholders’ equity summarizes the *changes* in the balance in each stockholders’ equity account *over a period of time*.

Question 10-21 (LO 10-7)

Total stockholders’ equity is equal to assets minus liabilities. An asset usually equals its market value *on the date it’s purchased*. However, the two aren’t necessarily the same after that. For instance, many buildings increase in value over time, but continue to be reported in the balance sheet

at historical cost minus accumulated depreciation. Other activities, such as research and development, might increase the long-term profit generating ability of the company, but under accounting rules, they are expensed. This causes the true market value of assets and stockholders' equity to be greater than the amount recorded for assets and stockholders' equity in the accounting records. Even when investors see the increase in a company's value and its stock price moves higher, common stock in the company's balance sheet continues to be reported at its original issue price rather than its higher market value.

Question 10-22 (LO 10-8)

Earnings per share is not comparable between companies because companies do not have the same number of shares. By simply declaring a 2-for-1 stock split, a company will immediately double the number of shares, thereby reducing its earnings per share in half. Even in comparing earnings per share for the same company over time, it is important to adjust for changes in the number of shares due to stock dividends or stock splits during the comparison period.

Question 10-23 (LO 10-8)

PE stands for price-earnings. Investors use the PE ratio to evaluate the price of a stock in relation to the current earnings generated. A high PE ratio indicates that the market has high hopes for a company's stock and has bid up the price. They are priced high in relation to current earnings because investors expect future earnings to be higher. On the other hand, a low PE ratio might indicate a lack of confidence by the market, or it might suggest an underpriced "sleeper" or value stock.

BRIEF EXERCISES

Brief Exercise 10-1 (LO 10-1)

ADVANTAGES OF A CORPORATION

- Limited Liability—Even in the event of bankruptcy, stockholders in a corporation can lose no more than the amount they invested in the company. In contrast, owners in a sole proprietorship or a partnership can be held personally liable for debts the company has incurred, over and beyond the investment they have made.
- Raising Capital—A corporation is better suited to raising capital than is a sole proprietorship or a partnership.

DISADVANTAGES OF A CORPORATION

- Additional Taxes—Owners of sole-proprietorships and partnerships are taxed once, when they include their share of earnings in their personal income tax returns. However, corporations have double taxation.
- More Paperwork—To protect the rights of those who buy a corporation's stock or who loan money to a corporation, the state and federal governments impose extensive reporting requirements on the company.

Brief Exercise 10-2 (LO 10-1)

An S Corporation allows a company to enjoy limited liability as a corporation, but tax treatment as a partnership. Because of these benefits, many companies that qualify choose to incorporate as an S Corporation. One of the major restrictions is that the corporation cannot have more than 100 stockholders, so S Corporations appeal more to smaller, less widely held businesses.

Brief Exercise 10-3 (LO 10-2)

| | | |
|---|--------|--------|
| Cash (3,000 shares x \$11) | 33,000 | |
| Common Stock (3,000 shares x \$0.01) | | 30 |
| Additional Paid-in Capital (difference) (Issue common stock above par) | | 32,970 |

Brief Exercise 10-4 (LO 10-2)

| | | |
|--|---------------|---------------|
| Cash (1,000 shares x \$30) | 30,000 | |
| Common Stock (1,000 shares x \$1.00) | | 1,000 |
| Additional Paid-in Capital (difference) <i>(Issue common stock above par)</i> | | 29,000 |

| | | |
|---|---------------|---------------|
| Cash (1,000 shares x \$30) | 30,000 | |
| Common Stock <i>(Issue no-par value common stock)</i> | | 30,000 |

Brief Exercise 10-5 (LO 10-3)

| | | |
|--|---------------|---------------|
| Cash (1,000 shares x \$32) | 32,000 | |
| Preferred Stock (1,000 shares x \$0.01) | | 10 |
| Additional Paid-in Capital (difference) <i>(Issue preferred stock above par)</i> | | 31,990 |

Brief Exercise 10-6 (LO 10-3)

| Preferred Stock Features | Description |
|-----------------------------|---|
| <u> c </u> 1. Convertible | a. Prior unpaid dividends receive priority. |
| <u> b </u> 2. Redeemable | b. Shares can be sold at a predetermined price. |
| <u> a </u> 3. Cumulative | c. Shares can be exchanged for common stock. |

Brief Exercise 10-7 (LO 10-3)

| | | |
|---|----------|-----------------|
| Preferred dividends in arrears for 2019 and 2020 ($\$7,000 \times 2$ years) | \$14,000 | |
| Preferred dividends for 2021 (2,000 shares \times 7% \times \$50 par value) | 7,000 | |
| Remaining dividends to common stockholders | | 2,000 |
| Total dividends | | <u>\$23,000</u> |

Brief Exercise 10-8 (LO 10-4)

| | | |
|---|-------|-------|
| Treasury Stock (100 shares \times \$38) | 3,800 | |
| Cash | | 3,800 |
| <i>(Purchase treasury stock)</i> | | |

Brief Exercise 10-9 (LO 10-4)

| | | |
|--|-------|-------|
| Cash (100 shares \times \$40) | 4,000 | |
| Treasury Stock (100 shares \times \$38) | | 3,800 |
| Additional Paid-in Capital (100 shares \times \$2) | | 200 |
| <i>(Resell treasury stock above cost)</i> | | |

Brief Exercise 10-10 (LO 10-5)

October 1

| | | |
|--|-------|-------|
| Dividends (4,000 shares \times \$0.75) | 3,000 | |
| Dividends Payable | | 3,000 |
| <i>(Declare cash dividends)</i> | | |

October 15
No Entry

October 31

| | | |
|--|-------|-------|
| Dividends Payable (4,000 shares \times \$0.75) | 3,000 | |
| Cash | | 3,000 |
| <i>(Pay cash dividends)</i> | | |

Brief Exercise 10-11 (LO 10-6)

June 30

| | | |
|---|---------------|---------------|
| Stock Dividends (30,000 shares x \$1.00) | 30,000 | |
| Common Stock | | 30,000 |
| <i>(Record 100% [large] stock dividend)</i> | | |

Brief Exercise 10-12 (LO 10-6)

- No entry is recorded for a 2-for-1 stock split, because the balance in all of the accounts remain the same before and after a stock split.
- Number of shares: $30,000 \times 2 = 60,000$
- Par value per share: $\$1.00 \div 2 = \0.50
- Market price per share: $\$35.00 \div 2 = \17.50

Brief Exercise 10-13 (LO 10-7)

| <u>Transaction</u> | <u>Total Assets</u> | <u>Total Liabilities</u> | <u>Total Stockholders' Equity</u> |
|-------------------------|---------------------|--------------------------|-----------------------------------|
| Issue common stock | + | NE | + |
| Issue preferred stock | + | NE | + |
| Purchase treasury stock | - | NE | - |
| Resell treasury stock | + | NE | + |

Brief Exercise 10-14 (LO 10-7)
**Summit Apparel
Balance Sheet
(Stockholders' Equity Section)
December 31**
Stockholders' equity:

| | |
|--------------------------------|--------------|
| Common stock, \$1.00 par value | \$ 2,000,000 |
| Additional paid-in capital | 18,000,000 |
| Total paid-in capital | 20,000,000 |
| Retained earnings | 11,000,000 |
| Treasury stock, 60,000 shares | (1,320,000) |
| Total stockholders' equity | \$29,680,000 |

Brief Exercise 10-15 (LO 10-8)

| (\$ in millions) | Net Income | ÷ | Average Stockholders' Equity | = | Return on Equity |
|----------------------------|---------------|---|------------------------------------|---|---------------------|
| Colorado Outfitters | \$320 | ÷ | (\$3,219 + 2,374) / 2 | = | 11.4% |

EXERCISES

Exercise 10-1 (LO 10-1)

Terms

- f 1. Publicly held corporation.
- d 2. Organization chart.
- h 3. Articles of incorporation.
- a 4. Limited liability.
- g 5. Initial public offering.
- b 6. Double taxation.
- e 7. S corporation.
- c 8. Limited liability company.

Definitions

- a. Shareholders can lose no more than the amount they invested in the company.
- b. Corporate earnings are taxed twice - at the corporate level and individual shareholder level.
- c. Like an S corporation, but there are no limitations on the number of owners as in an S corporation.
- d. Traces the line of authority within the corporation.
- e. Allows for legal treatment as a corporation, but tax treatment as a partnership.
- f. Has stock traded on a stock exchange such as the New York Stock Exchange (NYSE).
- g. The first time a corporation issues stock to the public.
- h. Describes (a) the nature of the firm's business activities, (b) the shares to be issued, and (c) the composition of the initial board of directors.

Exercise 10-2 (LO 10-2, 10-3, 10-4)

Authorized stock is the total number of shares available to sell, stated in the company's articles of incorporation.

Issued stock is the number of shares that have been sold to investors.

Outstanding stock is the number of shares held by investors. Issued and outstanding are the same amounts as long as the corporation has not purchased any of its shares.

Preferred stock is "preferred" over common stock in two ways. Preferred stockholders usually have first rights to a specified amount of dividend and receive preference over common stockholders in the distribution of assets in the event the corporation is dissolved.

Treasury stock is the company's own stock that it has purchased.

Exercise 10-3 (LO 10-2)

Requirement 1

January 1

| | | |
|--|---------------|---------------|
| Cash (700 shares x \$50) | 35,000 | |
| Common Stock | | 35,000 |
| <i>(Issue no-par value common stock)</i> | | |

April 1

| | | |
|--|--------------|--------------|
| Cash (110 shares x \$54) | 5,940 | |
| Common Stock | | 5,940 |
| <i>(Issue no-par value common stock)</i> | | |

Requirement 2

January 1

| | | |
|---|---------------|---------------|
| Cash (700 shares x \$50) | 35,000 | |
| Common Stock (700 shares x \$1.00) | | 700 |
| Additional Paid-in Capital (difference) | | 34,300 |
| <i>(Issue common stock above par or stated value)</i> | | |

April 1

| | | |
|---|--------------|--------------|
| Cash (110 shares x \$54) | 5,940 | |
| Common Stock (110 shares x \$1.00) | | 110 |
| Additional Paid-in Capital (difference) | | 5,830 |
| <i>(Issue common stock above par or stated value)</i> | | |

Exercise 10-4 (LO 10-3)

Requirement 1

| | |
|--|-----------------|
| Preferred dividends in arrears for 2020 | \$10,000 |
| Preferred dividends for 2021 (2,000 shares x 5% x \$100 par value) | 10,000 |
| Remaining dividends to common stockholders | <u>2,000</u> |
| Total dividends | <u>\$22,000</u> |

Requirement 2

| | |
|--|-----------------|
| Preferred dividends in arrears for 2020 | \$ 0 |
| Preferred dividends for 2021 (2,000 shares x 5% x \$100 par value) | 10,000 |
| Remaining dividends to common stockholders | <u>12,000</u> |
| Total dividends | <u>\$22,000</u> |

Exercise 10-5 (LO 10-2, 10-3, 10-5)

| | <u>Debit</u> | <u>Credit</u> |
|--|---------------|---------------|
| <u>February 1</u> | | |
| Cash (6,000 x \$16) | 96,000 | |
| Common Stock (6,000 x \$16) <i>(Issue common stock no-par value)</i> | | 96,000 |
| | | |
| <u>May 15</u> | | |
| Cash (700 x \$13) | 9,100 | |
| Preferred Stock (700 x \$10) | | 7,000 |
| Additional Paid-in Capital <i>(Issue preferred stock above par)</i> | | 2,100 |
| | | |
| <u>October 1</u> | | |
| Dividends (6,700 shares x \$1.25) | 8,375 | |
| Dividends Payable <i>(Declare cash dividends)</i> | | 8,375 |
| | | |
| <u>October 15</u> | | |
| No Entry | | |
| | | |
| <u>October 31</u> | | |
| Dividends Payable (6,700 shares x \$1.25) | 8,375 | |
| Cash <i>(Pay cash dividends)</i> | | 8,375 |

Exercise 10-6 (LO 10-2, 10-3, 10-4)

| <u>January 2, 2021</u> | <u>Debit</u> | <u>Credit</u> |
|---|------------------|------------------|
| Cash (100,000 x \$35) | 3,500,000 | |
| Common Stock (100,000 x \$1) | | 100,000 |
| Additional Paid-in Capital (difference) | | 3,400,000 |
| <i>(Issue common stock above par)</i> | | |
| | | |
| <u>February 6, 2021</u> | | |
| Cash (3,000 x \$11) | 33,000 | |
| Preferred Stock (3,000 x \$10) | | 30,000 |
| Additional Paid-in Capital (difference) | | 3,000 |
| <i>(Issue preferred stock above par)</i> | | |
| | | |
| <u>September 10, 2021</u> | | |
| Treasury Stock (11,000 shares x \$40) | 440,000 | |
| Cash | | 440,000 |
| <i>(Purchase treasury stock)</i> | | |
| | | |
| <u>December 15, 2021</u> | | |
| Cash (5,500 shares x \$45) | 247,500 | |
| Treasury Stock (5,500 shares x \$40) | | 220,000 |
| Additional Paid-in Capital (5,500 x \$5) | | 27,500 |
| <i>(Resell treasury stock above cost)</i> | | |

Exercise 10-7 (LO 10-7)

| |
|---|
| Finishing Touches Balance Sheet (Stockholders' Equity Section) December 31, 2021 |
|---|

Stockholders' equity:

| | |
|---------------------------------|---------------------------|
| Preferred stock, \$10 par value | \$ 30,000 |
| Common stock, \$1.00 par value | 100,000 |
| Additional paid-in capital | 3,430,500 |
| Total paid-in capital | <u>3,560,500</u> |
| Retained earnings | 63,100 * |
| Treasury stock, 5,500 shares | (220,000) |
| Total stockholders' equity | <u><u>\$3,403,600</u></u> |

* \$160,000 – (\$94,500 + \$2,400)

Exercise 10-8 (LO 10-5)

| <u>March 15</u> | <u>Debit</u> | <u>Credit</u> |
|---|-------------------|-------------------|
| Dividends (210 million shares x \$0.125) | 26,250,000 | |
| Dividends Payable <i>(Declare cash dividends)</i> | | 26,250,000 |

March 30
No Entry

| | | |
|---|-------------------|-------------------|
| <u>April 13</u> | | |
| Dividends Payable (210 million shares x \$0.125) | 26,250,000 | |
| Cash <i>(Pay cash dividends)</i> | | 26,250,000 |

Exercise 10-9 (LO 10-2, 10-4, 10-5)

| <u>March 1, 2021</u> | <u>Debit</u> | <u>Credit</u> |
|---|------------------|------------------|
| Cash (65,000 x \$62) | 4,030,000 | |
| Common Stock (65,000 x \$1) | | 65,000 |
| Additional Paid-in Capital (difference) <i>(Issue common stock above par)</i> | | 3,965,000 |
| | | |
| <u>May 10, 2021</u> | | |
| Treasury Stock (6,000 shares x \$65) | 390,000 | |
| Cash <i>(Purchase treasury stock)</i> | | 390,000 |
| | | |
| <u>June 1, 2021</u> | | |
| Dividends (159,000 shares x \$2.00) | 318,000 | |
| Dividends Payable <i>(Declare cash dividends)</i> | | 318,000 |
| | | |
| <u>July 1, 2021</u> | | |
| Dividends Payable (159,000 shares x \$2.00) | 318,000 | |
| Cash <i>(Pay cash dividends)</i> | | 318,000 |
| | | |
| <u>October 21, 2021</u> | | |
| Cash (3,000 shares x \$70) | 210,000 | |
| Treasury Stock (3,000 shares x \$65) | | 195,000 |
| Additional Paid-in Capital (3,000 x \$5) <i>(Resell treasury stock)</i> | | 15,000 |

Exercise 10-10 (LO 10-6)

Requirement 1

September 1

| | | |
|--|---------------|---------------|
| Stock Dividends (10,000 x 10% x \$30) | 30,000 | |
| Common Stock (10,000 x 10% x \$1) | | 1,000 |
| Additional Paid-in Capital (difference) | | 29,000 |

(Record 10% stock dividend, small stock dividend)

Requirement 2

September 1

| | | |
|--|---------------|---------------|
| Stock Dividends (10,000 shares x \$1) | 10,000 | |
| Common Stock | | 10,000 |

(Record 100% stock dividend, large stock dividend)

Requirement 3

- No entry is recorded for a 2-for-1 stock split, because the balance in all of the accounts remains the same before and after a stock split.

Exercise 10-11 (LO 10-7)

| |
|---|
| Power Drive Corporation Balance Sheet (Stockholders' Equity Section) December 31, 2021 |
|---|

Stockholders' equity:

| | |
|--------------------------------|--------------|
| Common stock, \$1.00 par value | \$ 165,000 |
| Additional paid-in capital | 9,480,000 |
| Total paid-in capital | 9,645,000 |
| Retained earnings | 3,382,000 * |
| Treasury stock, 3,000 shares | (195,000) |
| Total stockholders' equity | \$12,832,000 |

* \$3,000,000 + \$700,000 – \$318,000

Exercise 10-12 (LO 10-7)

| |
|---|
| Power Drive Corporation Statement of Stockholders' Equity For the Year Ended December 31, 2021 |
|---|

| | Common Stock | Additional Paid-in Capital | Retained Earnings | Treasury Stock | Total Stockholders' Equity |
|-----------------------------|------------------|----------------------------------|----------------------|-------------------|----------------------------------|
| Balance, January 1 | \$100,000 | 5,500,000 | 3,000,000 | -0- | \$ 8,600,000 |
| Issue common stock | 65,000 | 3,965,000 | | | 4,030,000 |
| Purchase treasury stock | | | | (390,000) | (390,000) |
| Declare dividends | | | (318,000) | | (318,000) |
| Resell treasury stock | | 15,000 | | 195,000 | 210,000 |
| Net income | | | 700,000 | | 700,000 |
| Balance, December 31 | \$165,000 | 9,480,000 | 3,382,000 | (195,000) | \$12,832,000 |

Exercise 10-13 (LO 10-7)

| Transaction | Total Assets | Total Liabilities | Total Stockholders' Equity |
|-------------------------|--------------|-------------------|----------------------------|
| Issue common stock | + | NE | + |
| Issue preferred stock | + | NE | + |
| Purchase treasury stock | - | NE | - |
| Resell treasury stock | + | NE | + |
| Declare cash dividend | NE | + | - |
| Pay cash dividend | - | - | NE |
| 100% stock dividend | NE | NE | NE |
| 2-for-1 stock split | NE | NE | NE |

Exercise 10-14 (LO 10-7)

United Apparel
Balance Sheet
(Stockholders' Equity Section)
December 31, 2021

| | |
|------------------------------|--------------|
| Stockholders' equity: | |
| Preferred stock | \$ 3,600,000 |
| Common stock | 600,000 |
| Additional paid-in capital | 8,800,000 |
| Total paid-in capital | 13,000,000 |
| Retained earnings | 2,200,000 |
| Treasury stock | (850,000) |
| Total stockholders' equity | \$14,350,000 |

Exercise 10-15 (LO 10-8)

Requirement 1

| (\$ in millions) | Net Income | ÷ | Average Stockholders' Equity | = | Return on Equity |
|-------------------|---------------|---|---------------------------------|---|---------------------|
| Friendly Fashions | \$312 | ÷ | $(\$2,310 + 1,850) / 2$ | = | 15.0% |

Requirement 2

| (\$ in millions) | Dividends Per Share | ÷ | Stock Price | = | Dividend Yield |
|-------------------|------------------------|---|----------------|---|-------------------|
| Friendly Fashions | \$0.31 | ÷ | \$6.20 | = | 5.0% |

Requirement 3

| (\$ in millions) | Net Income | ÷ | Shares Outstanding | = | Earnings per Share |
|-------------------|---------------|---|--------------------|---|--------------------|
| Friendly Fashions | \$312 | ÷ | 675 | = | \$0.46 |

Requirement 4

| (\$ in millions) | Stock Price | ÷ | Earnings Per Share | = | Price-Earnings Ratio |
|-------------------|----------------|---|--------------------|---|-------------------------|
| Friendly Fashions | \$6.20 | ÷ | \$0.46 | = | 13.5 |

Exercise 10-16 (LO 10-8)

Requirement 1

| (\$ in millions) | Net Income Minus Preferred Dividends | ÷ | Average Shares Outstanding | = | Earnings per Share |
|------------------|---|---|-------------------------------|---|--------------------|
| 2020 | (\$308 – \$15) | ÷ | 400 | = | \$0.7325 |
| 2021 | (\$129 – \$20) | ÷ | 150 | = | \$0.7267 |

Earnings per share (EPS) is calculated as net income minus preferred dividends, divided by average shares outstanding. In 2020, $EPS = (\$308 - \$15)/400 = \$0.7325$. In 2021, $EPS = (\$129 - \$20)/150 = \$0.7267$. EPS did not increase in 2021.

Requirement 2

| (\$ in millions) | Stock Price | ÷ | Earnings Per Share | = | Price-Earnings Ratio |
|------------------|-------------|---|--------------------|---|-------------------------|
| 2020 | \$10.97 | ÷ | \$0.7325 | = | \$14.98 |
| 2021 | \$12.02 | ÷ | \$0.7267 | = | \$16.54 |

The price-earnings ratio is calculated as stock price divided by earnings per share. In 2020, the price-earnings ratio = $\$10.97/\$0.7325 = \$14.98$. In 2021, the price-earnings ratio = $\$12.02/\$0.7267 = \$16.54$. The stock price in relation to earnings is lower in 2020.

Exercise 10-17

Requirement 1

| | | |
|---------------------------------------|---------------|---------------|
| <u>January 2</u> | <u>Debit</u> | <u>Credit</u> |
| Cash | 40,000 | |
| Common Stock | | 2,000 |
| Additional Paid-in Capital | | 38,000 |
| <i>(Issue common stock)</i> | | |
| | | |
| <u>January 9</u> | <u>Debit</u> | <u>Credit</u> |
| Accounts Receivable | 14,300 | |
| Service Revenue | | 14,300 |
| <i>(Provide services on account)</i> | | |
| | | |
| <u>January 10</u> | <u>Debit</u> | <u>Credit</u> |
| Supplies | 4,900 | |
| Accounts Payable | | 4,900 |
| <i>(Purchase supplies on account)</i> | | |
| | | |
| <u>January 12</u> | <u>Debit</u> | <u>Credit</u> |
| Treasury Stock | 18,000 | |
| Cash | | 18,000 |
| <i>(Purchase treasury stock)</i> | | |
| | | |
| <u>January 15</u> | <u>Debit</u> | <u>Credit</u> |
| Accounts Payable | 16,500 | |
| Cash | | 16,500 |
| <i>(Pay cash on account)</i> | | |
| | | |
| <u>January 21</u> | <u>Debit</u> | <u>Credit</u> |
| Cash | 49,100 | |
| Service Revenue | | 49,100 |
| <i>(Provide services for cash)</i> | | |
| | | |
| <u>January 22</u> | <u>Debit</u> | <u>Credit</u> |
| Cash | 16,600 | |
| Accounts Receivable | | 16,600 |
| <i>(Receive cash on account)</i> | | |

Exercise 10-17 (continued)
Requirement 1 (concluded)

| | | |
|--|---------------|---------------|
| <u>January 29</u> | <u>Debit</u> | <u>Credit</u> |
| Dividends | 3,300 | |
| Dividends Payable | | 3,300 |
| <i>(Declare cash dividends)</i> | | |
| <i>(\$3,300 = [10,000 + 2,000 - 1,000] × \$0.30)</i> | | |
| <u>January 30</u> | <u>Debit</u> | <u>Credit</u> |
| Cash | 12,000 | |
| Treasury Stock | | 10,800 |
| Additional Paid-in Capital | | 1,200 |
| <i>(Resell treasury stock)</i> | | |
| <u>January 31</u> | <u>Debit</u> | <u>Credit</u> |
| Salaries Expense | 42,000 | |
| Cash | | 42,000 |
| <i>(Pay monthly salaries)</i> | | |

Exercise 10-17 (continued)

Requirement 2

| | | |
|--|--------------|---------------|
| <u>(a) January 31</u> | <u>Debit</u> | <u>Credit</u> |
| Utilities Expense | 6,200 | |
| Utilities Payable | | 6,200 |
| <i>(Adjust utilities)</i> | | |
| | | |
| <u>(b) January 31</u> | <u>Debit</u> | <u>Credit</u> |
| Supplies Expense | 7,300 | |
| Supplies | | 7,300 |
| <i>(Adjust supplies)</i> | | |
| <i>(\$7,300 = \$7,500 + \$4,900 - \$5,100)</i> | | |
| | | |
| <u>(c) January 31</u> | <u>Debit</u> | <u>Credit</u> |
| Depreciation Expense | 1,500 | |
| Accumulated Depreciation | | 1,500 |
| <i>(Record depreciation for January)</i> | | |
| <i>(\$1,500 = [\$64,000 - \$10,000] / 36 months)</i> | | |
| | | |
| <u>(d) January 31</u> | <u>Debit</u> | <u>Credit</u> |
| Income Tax Expense | 2,000 | |
| Income Tax Payable | | 2,000 |
| <i>(Adjust income taxes)</i> | | |

Exercise 10-17 (continued)

Requirement 3

**Grand Finale Fireworks
Adjusted Trial Balance
January 31, 2021**

| <u>Accounts</u> | <u>Debit</u> | <u>Credit</u> |
|----------------------------|------------------|------------------|
| Cash | \$ 83,900 | |
| Accounts Receivable | 42,200 | |
| Supplies | 5,100 | |
| Equipment | 64,000 | |
| Accumulated Depreciation | | \$ 10,500 |
| Accounts Payable | | 3,000 |
| Utilities Payable | | 6,200 |
| Dividends Payable | | 3,300 |
| Income Tax Payable | | 2,000 |
| Common Stock | | 12,000 |
| Additional Paid-in Capital | | 119,200 |
| Retained Earnings | | 45,100 |
| Dividends | 3,300 | |
| Treasury Stock | 7,200 | |
| Service Revenue | | 63,400 |
| Salaries Expense | 42,000 | |
| Utilities Expense | 6,200 | |
| Supplies Expense | 7,300 | |
| Depreciation Expense | 1,500 | |
| Income Tax Expense | 2,000 | |
| Totals | <u>\$264,700</u> | <u>\$264,700</u> |

Exercise 10-17 (continued)
Requirement 3 (continued)

| Accounts | Ending Balance | Beginning balance in bold , entries during January in blue , and adjusting entries in red . |
|----------------------------|-------------------|---|
| Cash | 83,900 | = 42,700 +40,000-18,000-16,500+49,100+16,600+12,000-42,000 |
| Accounts Receivable | 42,200 | = 44,500 +14,300-16,600 |
| Supplies | 5,100 | = 7,500 +4,900-7,300 |
| Equipment | 64,000 | = 64,000 |
| Accumulated Depreciation | 10,500 | = 9,000 +1,500 |
| Accounts Payable | 3,000 | = 14,600 +4,900-16,500 |
| Utilities Payable | 6,200 | = 6,200 |
| Dividends Payable | 3,300 | = 3,300 |
| Income Tax Payable | 2,000 | = 2,000 |
| Common Stock | 12,000 | = 10,000 +2,000 |
| Additional Paid-in Capital | 119,200 | = 80,000 +38,000+1,200 |
| Retained Earnings | 45,100 | = 45,100 |
| Dividends | 3,300 | = 3,300 |
| Treasury Stock | 7,200 | = 18,000-10,800 |
| Service Revenue | 63,400 | = 14,300+49,100 |
| Salaries Expense | 42,000 | = 42,000 |
| Utilities Expense | 8,200 | = 8,200 |
| Supplies Expense | 7,300 | = 7,300 |
| Depreciation Expense | 1,500 | = 1,500 |
| Income Tax Expense | 2,000 | = 2,000 |

Exercise 10-17 (continued)

Requirement 4

Grand Finale Fireworks
Income Statement
For the month ended January 31, 2021

| | |
|----------------------|-----------------|
| Service revenue | \$63,400 |
| Salaries expense | 42,000 |
| Utilities expense | 6,200 |
| Supplies expense | 7,300 |
| Depreciation expense | 1,500 |
| Income before taxes | 6,400 |
| Income tax expense | 2,000 |
| Net income | <u>\$ 4,400</u> |

Requirement 5

Grand Finale Fireworks
Balance Sheet
January 31, 2021

| <u>Assets</u> | | <u>Liabilities</u> | |
|--------------------------------|------------------|--|------------------|
| Cash | \$ 83,900 | Accounts payable | \$ 3,000 |
| Accounts receivable | 42,200 | Utilities payable | 6,200 |
| Supplies | 5,100 | Dividends payable | 3,300 |
| Total current assets | <u>131,200</u> | Income tax payable | 2,000 |
| | | Total current liabilities | <u>14,500</u> |
| | | <u>Stockholders' Equity</u> | |
| | | Common stock | 12,000 |
| | | Additional paid-in capital | 119,200 |
| | | Retained earnings | 46,200 * |
| Equipment | 64,000 | Treasury stock | <u>(7,200)</u> |
| Less: Accumulated Depreciation | <u>(10,500)</u> | Total stockholders' equity | <u>170,200</u> |
| Total assets | <u>\$184,700</u> | Total liabilities and stockholders' equity | <u>\$184,700</u> |

* Retained earnings = Beginning retained earnings + Net income – Dividends
= \$45,100 + \$4,400 – \$3,300
= \$46,200

Exercise 10-17 (concluded)
Requirement 6

| January 31, 2021 | Debit | Credit |
|---|--------|--------|
| Service Revenue | 63,400 | |
| Retained Earnings (Close revenue accounts) | | 63,400 |
| Retained Earnings | 59,000 | |
| Salaries Expense | | 42,000 |
| Utilities Expense | | 6,200 |
| Supplies Expense | | 7,300 |
| Depreciation Expense | | 1,500 |
| Income Tax Expense (Close expense accounts) | | 2,000 |
| Retained Earnings | 3,300 | |
| Dividends (Close dividend account) | | 3,300 |

Requirement 7

(a) The return on equity is:

$$\text{Return on Equity Ratio} = \frac{\text{Net Income}}{\text{Average Stockholders' Equity}} = \frac{\$4,400}{(\$135,100 + \$170,200) / 2} = \mathbf{2.9\%}$$

Compared to the industry average of 2.5%, Grand Finale Fireworks is **more** profitable than other companies in the same industry. Note these are monthly, rather than annual, return on equity calculations. A consistent monthly return on equity of 2.5% results in a 30% annual return on equity.

(b) The number of common shares **outstanding** as of January 31, 2021 is **11,600**. The company had 10,000 shares at the beginning of January, issued 2,000 additional shares on January 2, purchased 1,000 shares on January 12, and resold 600 shares on January 30.
 (11,600 = 10,000+2,000–1,000+600)

(c) Earnings per share is:

$$\text{Earnings Per Share} = \frac{\text{Net Income}}{\text{Average Shares Outstanding}} = \frac{\$4,400}{(10,000 + 11,600) / 2} = \mathbf{0.41}$$

Compared to an average earnings per share of \$0.30 per month last year, earnings per share for January 2021 is **better** than last year's average earnings per share.

PROBLEMS: SET A

Problem 10-1A (LO 10-1)

Terms

- | | |
|--------------|-----------------------|
| <u> f </u> | 1. Cumulative. |
| <u> d </u> | 2. Retained earnings. |
| <u> g </u> | 3. Outstanding stock. |
| <u> h </u> | 4. Limited liability. |
| <u> j </u> | 5. Treasury stock. |
| <u> e </u> | 6. Issued stock. |
| <u> i </u> | 7. Angel investors. |
| <u> a </u> | 8. Paid-in capital. |
| <u> b </u> | 9. Authorized stock. |
| <u> c </u> | 10. Redeemable. |

Definitions

- The amount invested by stockholders.
- Shares available to sell.
- Shares can be returned to the corporation at a predetermined price.
- The earnings not paid out in dividends.
- Shares actually sold.
- Shares receive priority for future dividends if dividends are not paid in a given year.
- Shares held by investors.
- Shareholders can lose no more than the amount they invested in the company.
- Wealthy individuals in the business community willing to risk investment funds on a promising business venture.
- The corporation's own stock that it acquired.

Problem 10-2A (LO 10-2, 10-3, 10-4, 10-5)

Requirement 1

| | <u>Debit</u> | <u>Credit</u> |
|--|---------------|---------------|
| <u>March 1, 2021</u> | | |
| Cash (1,100 x \$42) | 46,200 | |
| Common Stock (1,100 x \$0.01) | | 11 |
| Additional Paid-in Capital (difference) <i>(Issue common stock)</i> | | 46,189 |
| | | |
| <u>May 15, 2021</u> | | |
| Treasury Stock (400 shares x \$35) | 14,000 | |
| Cash <i>(Purchase treasury stock)</i> | | 14,000 |
| | | |
| <u>July 10, 2021</u> | | |
| Cash (200 shares x \$40) | 8,000 | |
| Treasury Stock (200 shares x \$35) | | 7,000 |
| Additional Paid-in Capital (200 x \$5) <i>(Resell treasury stock above cost)</i> | | 1,000 |
| | | |
| <u>October 15, 2021</u> | | |
| Cash (200 x \$45) | 9,000 | |
| Preferred Stock (200 x \$1) | | 200 |
| Additional Paid-in Capital (difference) <i>(Issue preferred stock)</i> | | 8,800 |
| | | |
| <u>December 1, 2021</u> | | |
| Dividends (5,400 shares x \$0.50) | 2,700 | |
| Dividends Payable <i>(Declare cash dividends)</i> | | 2,700 |
| | | |
| <u>December 31, 2021</u> | | |
| Dividends Payable (5,400 shares x \$0.50) | 2,700 | |
| Cash <i>(Pay cash dividends)</i> | | 2,700 |

Requirement 2

| Transaction | Total Assets | Total Liabilities | Total Stockholders' Equity |
|-------------------------|---------------------|--------------------------|-----------------------------------|
| Issue common stock | + | NE | + |
| Purchase treasury stock | - | NE | - |
| Resell treasury stock | + | NE | + |
| Issue preferred stock | + | NE | + |
| Declare cash dividends | NE | + | - |
| Pay cash dividends | - | - | NE |

Problem 10-3A (LO 10-6)

Requirement 1

| | Before | After 100% Stock Dividend | After 2-for-1 Stock Split |
|------------------------------------|---------------|--------------------------------------|--------------------------------------|
| Common stock, \$1 par value | \$ 1,100 | \$ 2,200 | \$ 1,100 |
| Additional paid-in capital | 59,000 | 59,000 | 59,000 |
| Total paid-in capital | 60,100 | 61,200 | 60,100 |
| Retained earnings | 23,850 | 22,750 | 23,850 |
| Total stockholders' equity | \$83,950 | \$83,950 | \$83,950 |
| Shares outstanding | 1,100 | 2,200 | 2,200 |
| Par value per share | \$1.00 | \$1.00 | \$0.50 |
| Share price | \$130 | \$65 | \$65 |

Requirement 2

The primary reason companies declare a large stock dividend or a stock split is to lower the trading price of the stock to a more acceptable trading range, making it attractive to a larger number of potential investors.

Problem 10-4A (LO 10-7)

Requirement 1

6,000,000 shares = ($\$6,000 / \1 par value per share) in thousands (x 1,000).

Requirement 2

30,000,000 shares = ($\$30,000 / \1 par value per share) in thousands (x 1,000).

Requirement 3

\$50 per share. The total paid-in capital for common stock is \$900,000 (30,000 x \$30). Therefore, the total paid-in capital for preferred stock must be \$300,000 ($\$1,200,000 - \$900,000$). \$300,000 divided by 6,000 shares indicates an issue price of \$50 per share.

Requirement 4

(in millions)

| | |
|------------------------------|---------------------|
| Retained earnings, beginning | \$250 |
| + Net income | ? |
| – Dividends | <u>(30)</u> |
| = Retained earnings, ending | <u><u>\$288</u></u> |

Net income for the year was \$68 million.

Requirement 5

\$32 per share ($\$352,000 / 11,000$ shares).

Problem 10-5A (LO 10-7)

Requirement 1

Donnie Hilfiger
Balance Sheet
(Stockholders' Equity Section)
December 31, 2021

Stockholders' equity:

| | |
|--------------------------------|-----------|
| Preferred stock, \$1 par value | \$ 500 |
| Common stock, \$0.01 par value | 51 |
| Additional paid-in capital | 131,989 |
| Total paid-in capital | 132,540 |
| Retained earnings | 38,600 |
| Treasury stock, 200 shares | (7,000) |
| Total stockholders' equity | \$164,140 |

Requirement 2

Donnie Hilfiger
Statement of Stockholders' Equity
For the Year Ended December 31, 2021

| | Preferred Stock | Common Stock | Additional Paid-in Capital | Retained Earnings | Treasury Stock | Total Stockholders' Equity |
|-----------------------------|--------------------|-----------------|----------------------------------|----------------------|-------------------|----------------------------------|
| Balance, January 1 | \$300 | \$40 | \$ 76,000 | \$30,500 | \$ -0- | \$106,840 |
| Issue common stock | | 11 | 46,189 | | | 46,200 |
| Purchase treasury stock | | | | | (14,000) | (14,000) |
| Resell treasury stock | | | 1,000 | | 7,000 | 8,000 |
| Issue preferred stock | 200 | | 8,800 | | | 9,000 |
| Declare cash dividends | | | | (2,700) | | (2,700) |
| Net income | | | | 10,800 | | 10,800 |
| Balance, December 31 | \$500 | \$51 | \$131,989 | \$38,600 | \$(7,000) | \$164,140 |

Requirement 3

Items 1 and 2 are similar in that item 1 shows the equity balances in a column format and item 2 shows these same balances across the bottom row. However, items 1 and 2 serve different purposes. The stockholders' equity section of the balance sheet in item 1 presents the balance of each equity account at a point in time. The statement of stockholders' equity in item 2 shows the change in each equity account balance over time.

Problem 10-6A (LO 10-2, 10-3, 10-4, 10-5, 10-7)

Requirement 1

| | <u>Debit</u> | <u>Credit</u> |
|---|------------------|------------------|
| <u>January 2, 2021</u> | | |
| Cash (110,000 x \$70) | 7,700,000 | |
| Common Stock (110,000 x \$1) | | 110,000 |
| Additional Paid-in Capital (difference) <i>(Issue common stock above par)</i> | | 7,590,000 |
| | | |
| <u>February 14, 2021</u> | | |
| Cash (60,000 x \$12) | 720,000 | |
| Preferred Stock (60,000 x \$10) | | 600,000 |
| Additional Paid-in Capital (difference) <i>(Issue preferred stock above par)</i> | | 120,000 |
| | | |
| <u>May 8, 2021</u> | | |
| Treasury Stock (11,000 shares x \$60) | 660,000 | |
| Cash <i>(Purchase treasury stock)</i> | | 660,000 |
| | | |
| <u>May 31, 2021</u> | | |
| Cash (5,500 shares x \$65) | 357,500 | |
| Treasury Stock (5,500 shares x \$60) | | 330,000 |
| Additional Paid-in Capital (5,500 shares x \$5) <i>(Resell treasury stock above cost)</i> | | 27,500 |
| | | |
| <u>December 1, 2021</u> | | |
| Dividends [(104,500 shares x \$0.25) + \$36,000] | 62,125 | |
| Dividends Payable <i>(Declare cash dividends)</i> | | 62,125 |
| | | |
| <u>December 30, 2021</u> | | |
| Dividends Payable | 62,125 | |
| Cash <i>(Pay cash dividends)</i> | | 62,125 |

Requirement 2

| |
|---|
| <p style="text-align: center;">Major League Apparel Balance Sheet (Stockholders' Equity Section) December 31, 2021</p> |
|---|

| | |
|---------------------------------|--------------------|
| Stockholders' equity: | |
| Preferred stock, \$10 par value | \$ 600,000 |
| Common stock, \$1 par value | 110,000 |
| Additional paid-in capital | 7,737,500 |
| Total paid-in capital | <u>8,447,500</u> |
| Retained earnings | 427,875* |
| Treasury stock, 5,500 shares | <u>(330,000)</u> |
| Total stockholders' equity | <u>\$8,545,375</u> |

*\$490,000 net income – \$62,125 in dividends

Problem 10-7A (LO 10-8)

Requirement 1

| (\$ in millions) | Net Income | ÷ | Average Stockholders' Equity | = | Return on Equity |
|-----------------------|---------------|---|---------------------------------|---|---------------------|
| Khaki Republic | \$144 | ÷ | $(\$1,890 + 1,931) / 2$ | = | 7.5% |

Khaki Republic has a much lower return on equity than both Facebook and IBM.

Requirement 2

| | Dividends Per Share | ÷ | Stock Price | = | Dividend Yield |
|-----------------------|------------------------|---|----------------|---|-------------------|
| Khaki Republic | \$0.75 | ÷ | \$47.23 | = | 1.6% |

Khaki Republic has a higher dividend yield than Facebook because Facebook does not pay dividends, and Khaki Republic has a lower dividend yield than IBM.

Requirement 3

| (\$ in millions) | Stock Price | ÷ | Earnings Per Share | = | Price-Earnings Ratio |
|-----------------------|----------------|---|--------------------|---|-------------------------|
| Khaki Republic | \$47.23 | ÷ | $(\$144 / 85.6)$ | = | 28.1 |

Khaki Republic has a lower price-earnings ratio than Facebook, but a higher price-earnings ratio than IBM.

PROBLEMS: SET B

Problem 10-1B (LO 10-1 to 10-8)

Terms

- e 1. PE ratio.
- i 2. Stockholders' equity section of the balance sheet.
- a 3. Accumulated deficit.
- b 4. Growth stocks.
- c 5. 100% stock dividend.
- f 6. Statement of stockholders' equity.
- j 7. Treasury stock.
- g 8. Value stocks.
- h 9. Return on equity.
- d 10. Retained earnings,

Definitions

- a. A debit balance in retained earnings.
- b. Priced high in relation to current earnings as investors expect future earnings to be higher.
- c. Effectively the same as a 2-for-1 stock split.
- d. The earnings not paid out in dividends.
- e. The stock price divided by earnings per share.
- f. Summarizes the changes in the balance in each stockholders' equity account over a period of time.
- g. Priced low in relation to current earnings.
- h. Measures the ability of company management to generate earnings from the resources that owners provide.
- i. Shows the balance in each equity account at a point in time.
- j. The corporation's own stock that it acquired.

Problem 10-2B (LO 10-2, 10-3, 10-4, 10-5)

Requirement 1

| <u>March 1, 2021</u> | <u>Debit</u> | <u>Credit</u> |
|---|---------------|---------------|
| Cash (3,000 x \$10) | 30,000 | |
| Common Stock (3,000 x \$1.00) | | 3,000 |
| Additional Paid-in Capital (difference) <i>(Issue common stock)</i> | | 27,000 |
| | | |
| <u>April 1, 2021</u> | | |
| Cash (175 shares x \$40) | 7,000 | |
| Preferred Stock (175 shares x \$10) | | 1,750 |
| Additional Paid-in Capital (difference) <i>(Issue preferred stock)</i> | | 5,250 |
| | | |
| <u>June 1, 2021</u> | | |
| Dividends (6,300 shares x \$0.25) | 1,575 | |
| Dividends Payable <i>(Declare cash dividends)</i> | | 1,575 |
| | | |
| <u>June 30, 2021</u> | | |
| Dividends Payable (6,300 shares x \$0.25) | 1,575 | |
| Cash <i>(Pay cash dividends)</i> | | 1,575 |
| | | |
| <u>August 1, 2021</u> | | |
| Treasury Stock (175 shares x \$7) | 1,225 | |
| Cash <i>(Purchase treasury stock)</i> | | 1,225 |
| | | |
| <u>October 1, 2021</u> | | |
| Cash (125 shares x \$9) | 1,125 | |
| Treasury Stock (125 shares x \$7) | | 875 |
| Additional Paid-in Capital (125 shares x \$2) <i>(Resell treasury stock above cost)</i> | | 250 |

Requirement 2

| Transaction | Total Assets | Total Liabilities | Total Stockholders' Equity |
|-------------------------|-------------------------|------------------------------|---|
| Issue common stock | + | NE | + |
| Issue preferred stock | + | NE | + |
| Declare cash dividends | NE | + | - |
| Pay cash dividends | - | - | NE |
| Purchase treasury stock | - | NE | - |
| Resell treasury stock | + | NE | + |

Problem 10-3B (LO 10-6)

| | <u>Before</u> | <u>After 100% Stock Dividend</u> | <u>After 2-for-1 Stock Split</u> |
|---------------------------------------|----------------------|---|---|
| Common stock, \$0.01 par value | \$ 11 | \$ 22 | \$ 11 |
| Additional paid-in capital | 34,990 | 34,990 | 34,990 |
| Total paid-in capital | 35,001 | 35,012 | 35,001 |
| Retained earnings | 16,000 | 15,989 | 16,000 |
| Total stockholders' equity | <u>\$51,001</u> | <u>\$51,001</u> | <u>\$51,001</u> |
| | | | |
| Shares outstanding | 1,100 | 2,200 | 2,200 |
| Par value per share | \$0.01 | \$0.01 | \$0.005 |
| Share price | \$102 | \$51 | \$51 |

Problem 10-4B (LO 10-7)

Requirement 1

No preferred stock has been issued.

Requirement 2

4,000,000 shares = $(\$20,000 / \$5 \text{ par value per share})$ in thousands (x 1,000).

Requirement 3

\$30 per share. The total paid-in capital for common stock is \$120 million. \$120 million divided by 4 million shares indicates an issue price of \$30 per share.

Requirement 4

| | |
|------------------------------|------------------------------|
| Retained earnings, beginning | \$45,000,000 |
| + Net income | 9,907,500 |
| – Dividends | <u> ?</u> |
| = Retained earnings, ending | <u>\$53,000,000</u> |

Dividends paid for the year were \$1,907,500.

Requirement 5

185,000 shares = $(\$3,700 / \$20 \text{ per share})$ in thousands (x 1,000).

Requirement 6

$\$1,907,500 / (4,000,000 - 185,000) = \0.50 dividend per share.

Problem 10-5B (LO 10-7)

Requirement 1

| |
|---|
| <p>Nautical Balance Sheet (Stockholders' Equity Section) December 31, 2021</p> |
|---|

Stockholders' equity:

| | |
|---------------------------------|----------|
| Preferred stock, \$10 par value | \$ 3,000 |
| Common stock, \$1.00 par value | 6,000 |
| Additional paid-in capital | 52,000 |
| Total paid-in capital | 61,000 |
| Retained earnings | 17,575 |
| Treasury stock, 100 shares | (350) |
| Total stockholders' equity | \$78,225 |

Requirement 2

| Nautical Statement of Stockholders' Equity For the Year Ended December 31, 2021 | | | | | | |
|--|--------------------|-----------------|----------------------------------|----------------------|-------------------|----------------------------------|
| | Preferred Stock | Common Stock | Additional Paid-in Capital | Retained Earnings | Treasury Stock | Total Stockholders' Equity |
| Balance, January 1 | \$1,250 | \$3,000 | \$19,500 | \$11,500 | \$ -0- | \$35,250 |
| Issue common stock | | 3,000 | 27,000 | | | 30,000 |
| Issue preferred stock | 1,750 | | 5,250 | | | 7,000 |
| Declare dividends | | | | (1,575) | | (1,575) |
| Purchase treasury stock | | | | | (1,225) | (1,225) |
| Resell treasury stock | | | 250 | | 875 | 1,125 |
| Net income | | | | 7,650 | | 7,650 |
| Balance, December 31 | \$3,000 | \$6,000 | \$52,000 | \$17,575 | \$ (350) | \$78,225 |

Requirement 3

Items 1 and 2 are similar in that item 1 shows the equity balances in a column format and item 2 shows these same balances across the bottom row. However, items 1 and 2 serve different purposes. The stockholders' equity section of the balance sheet in item 1 presents the balance of each equity account at a point in time. The statement of stockholders' equity in item 2 shows the change in each equity account balance over time.

Problem 10-6B (LO 10-2, 10-3, 10-4, 10-5, 10-7)
Requirement 1

| | <u>Debit</u> | <u>Credit</u> |
|---|-------------------|-------------------|
| <u>February 2, 2021</u> | | |
| Cash (1,500,000 x \$35) | 52,500,000 | |
| Common Stock (1,500,000 x \$5) | | 7,500,000 |
| Additional Paid-in Capital (difference) | | 45,000,000 |
| <i>(Issue common stock above par)</i> | | |
| <u>February 4, 2021</u> | | |
| Cash (600,000 x \$23) | 13,800,000 | |
| Preferred Stock (600,000 x \$20) | | 12,000,000 |
| Additional Paid-in Capital (difference) | | 1,800,000 |
| <i>(Issue preferred stock above par)</i> | | |
| <u>June 15, 2021</u> | | |
| Treasury Stock (150,000 shares x \$30) | 4,500,000 | |
| Cash | | 4,500,000 |
| <i>(Purchase treasury stock)</i> | | |
| <u>August 15, 2021</u> | | |
| Cash (112,500 shares x \$45) | 5,062,500 | |
| Treasury Stock (112,500 shares x \$30) | | 3,375,000 |
| Additional Paid-in Capital (112,500 x \$15) | | 1,687,500 |
| <i>(Resell treasury stock above cost)</i> | | |
| <u>November 1, 2021</u> | | |
| Dividends (1,462,500 shares x \$1.50) + \$480,000) | 2,673,750 | |
| Dividends Payable | | 2,673,750 |
| <i>(Declare cash dividends)</i> | | |
| <u>November 30, 2021</u> | | |
| Dividends Payable | 2,673,750 | |
| Cash | | 2,673,750 |
| <i>(Pay cash dividends)</i> | | |

Problem 10-6B (Continued)

Requirement 2

| |
|--|
| National League Gear Balance Sheet (Stockholders' Equity Section) December 31, 2021 |
|--|

Stockholders' equity:

| | |
|---------------------------------|---------------------|
| Preferred stock, \$20 par value | \$12,000,000 |
| Common stock, \$5 par value | 7,500,000 |
| Additional paid-in capital | 48,487,500 |
| Total paid-in capital | <u>67,987,500</u> |
| Retained earnings* | 2,226,250 |
| Treasury stock, 37,500 shares | <u>(1,125,000)</u> |
| Total stockholders' equity | <u>\$69,088,750</u> |

* \$4,900,000 net income – \$2,673,750 in dividends

Problem 10-7B (LO 10-8)

Requirement 1

| (\$ in millions) | Net Income | ÷ | Average Stockholders' Equity | = | Return on Equity |
|------------------|---------------|---|---------------------------------|---|---------------------|
| DC Menswear | \$833 | ÷ | $(\$4,080 + 2,755) / 2$ | = | 24.4% |

DC Menswear has a higher return on equity than Facebook but a lower return on equity than IBM.

Requirement 2

| | Dividends Per Share | ÷ | Stock Price | = | Dividend Yield |
|-------------|------------------------|---|----------------|---|-------------------|
| DC Menswear | \$1.00 | ÷ | \$18.93 | = | 5.3% |

DC Menswear has a higher dividend yield than either Facebook or IBM. Facebook does not have a dividend yield because it does not pay dividends.

Requirement 3

| (\$ in millions) | Stock Price | ÷ | Earnings Per Share | = | Price-Earnings Ratio |
|------------------|-------------|---|--------------------|---|-------------------------|
| DC Menswear | \$18.93 | ÷ | $(\$833 / 485)$ | = | 11.0 |

DC Menswear has a lower price-earnings ratio than either Facebook or IBM. In other words, DC Menswear is trading at a lower price per dollar of earnings. Looks like a great buy. Unfortunately, it's a fictional company name from a video game.

ADDITIONAL PERSPECTIVES

Continuing Problem: Great Adventures

AP10-1

Requirement 1

| | <u>Debit</u> | <u>Credit</u> |
|--|------------------|----------------|
| <u>November 5, 2022</u> | | |
| Cash (100,000 x \$12) | 1,000,000 | |
| Common Stock (100,000 x \$1) | | 100,000 |
| Additional Paid-in Capital (difference) | | 900,000 |
| <i>(Issue common stock above par)</i> | | |
| | | |
| <u>November 16, 2022</u> | | |
| Treasury Stock (10,000 shares x \$15) | 150,000 | |
| Cash | | 150,000 |
| <i>(Purchase treasury stock)</i> | | |
| | | |
| <u>November 24, 2022</u> | | |
| Cash (4,000 shares x \$16) | 64,000 | |
| Treasury Stock (4,000 shares x \$15) | | 60,000 |
| Additional Paid-in Capital (4,000 shares x \$1) | | 4,000 |
| <i>(Resell treasury stock above cost)</i> | | |
| | | |
| <u>December 1, 2022</u> | | |
| Dividends | 11,400 | |
| Dividends Payable | | 11,400 |
| <i>(Declare cash dividends)</i> | | |
| | | |
| <u>December 20, 2022</u> | | |
| Dividends Payable | 11,400 | |
| Cash | | 11,400 |
| <i>(Pay cash dividends)</i> | | |
| | | |
| <u>December 31, 2022</u> | | |
| Building | 800,000 | |
| Cash | | 800,000 |
| <i>(Purchase buildings)</i> | | |

Requirement 2

| |
|--|
| Great Adventures, Inc. Balance Sheet (Stockholders' Equity Section) December 31, 2022 |
|--|

| | |
|------------------------------|--------------------------|
| Stockholders' equity: | |
| Common stock, \$1 par value | \$ 120,000 |
| Additional paid-in capital | 904,000 |
| Total paid-in capital | <u>1,024,000</u> |
| Retained earnings* | 57,885 |
| Treasury stock, 6,000 shares | <u>(90,000)</u> |
| Total stockholders' equity | <u><u>\$ 991,885</u></u> |

* \$33,450 beginning balance in retained earnings + \$35,835 net income – \$11,400 in dividends

Additional Perspective 10-1 (in General Ledger)

Students will be given the following existing trial balance.

Great Adventures, Inc.
Trial Balance
December 31, 2022
(Prior to transactions in AP10-1)

| Accounts | Debit | Credit |
|--------------------------------------|-----------|----------|
| Cash | \$ 77,968 | |
| Accounts Receivable | 50,000 | |
| Allowance for Uncollectible Accounts | | \$ 2,400 |
| Inventory | 7,000 | |
| Prepaid Insurance | 900 | |
| Land | 500,000 | |
| Buildings | -0- | |
| Equipment | 62,000 | |
| Accumulated Depreciation | | 25,250 |
| Accounts Payable | | 20,800 |
| Deferred Revenue | | 5,000 |
| Warranty Liability | | 4,000 |
| Contingent Liability | | 12,000 |
| Income Tax Payable | | 14,500 |
| Interest Payable | | 750 |
| Notes Payable (current) | | 48,014 |
| Notes Payable (long-term) | | 475,869 |
| Common Stock | | 20,000 |
| Retained Earnings | | 33,450 |
| Service Revenue | | 44,500 |
| Sales Revenue | | 120,000 |
| Interest Revenue | | 120 |
| Sales Discounts | 350 | |
| Cost of Goods Sold | 38,500 | |
| Depreciation Expense | 17,250 | |
| Insurance Expense | 5,700 | |
| Rent Expense | 2,400 | |
| Salaries Expense | 24,000 | |
| Supplies Expense | 500 | |
| Bad Debt Expense | 2,400 | |
| Repairs and Maintenance Expense | 400 | |
| Warranty Expense | 4,000 | |

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| | | |
|--------------------|------------------|------------------|
| Loss | 12,000 | |
| Interest Expense | 6,785 | |
| Income Tax Expense | 14,500 | |
| Totals | <u>\$826,653</u> | <u>\$826,653</u> |

Additional Perspective 10-1 (in General Ledger, continued)

| <u>November 5, 2022</u> | <u>Debit</u> | <u>Credit</u> |
|---|------------------|----------------|
| Cash (100,000 x \$12) | 1,000,000 | |
| Common Stock (100,000 x \$1) | | 100,000 |
| Additional Paid-in Capital (difference) <i>(Issue common stock above par)</i> | | 900,000 |
| | | |
| <u>November 16, 2022</u> | | |
| Treasury Stock (10,000 shares x \$15) | 150,000 | |
| Cash <i>(Purchase treasury stock)</i> | | 150,000 |
| | | |
| <u>November 16, 2022</u> | | |
| Cash (4,000 shares x \$16) | 64,000 | |
| Treasury Stock (4,000 shares x \$15) | | 60,000 |
| Additional Paid-in Capital (4,000 shares x \$1) <i>(Resell treasury stock above cost)</i> | | 4,000 |
| | | |
| <u>December 1, 2022</u> | | |
| Dividends | 11,400 | |
| Dividends Payable <i>(Declare cash dividends)</i> | | 11,400 |
| | | |
| <u>December 20, 2022</u> | | |
| Dividends Payable | 11,400 | |
| Cash <i>(Pay cash dividends)</i> | | 11,400 |
| | | |
| <u>December 30, 2022</u> | | |
| Building | 800,000 | |
| Cash <i>(Purchase buildings)</i> | | 800,000 |

Additional Perspective 10-1 (in General Ledger, continued)

| Great Adventures, Inc. Income Statement For the period ended December 31, 2022 | | |
|---|----------------|-------------------------|
| Service revenue | \$ 44,500 | |
| Sales revenue | 120,000 | |
| Sales Discounts | (350) | |
| Net sales | <u>164,150</u> | |
| Cost of goods sold | <u>38,500</u> | |
| Gross profit | | \$125,650 |
| Depreciation Expense | 17,250 | |
| Insurance Expense | 5,700 | |
| Rent Expense | 2,400 | |
| Salaries Expense | 24,000 | |
| Supplies Expense | 500 | |
| Bad Debt Expense | 2,400 | |
| Repairs and Maintenance Expense | 400 | |
| Warranty Expense | 4,000 | |
| Loss | <u>12,000</u> | |
| Total operating expenses | | <u>68,650</u> |
| Operating income (loss) | | 57,000 |
| Interest revenue | | 120 |
| Interest expense | | <u>(6,785)</u> |
| Income before income taxes | | 50,335 |
| Income tax expense | | <u>14,500</u> |
| Net income | | <u>\$ 35,835</u> |

Additional Perspective 10-1 (in General Ledger, continued)

Great Adventures, Inc.
Balance Sheet
December 31, 2022

| <u>Assets</u> | | <u>Liabilities</u> | |
|--------------------------|-------------|-----------------------------|-------------|
| Current assets: | | Current liabilities: | |
| Cash | \$180,568 | Accounts payable | \$ 20,800 |
| Accounts receivable | 50,000 | Deferred Revenue | 5,000 |
| Allow for Uncoll Accts | (2,400) | Warranty Liability | 4,000 |
| Inventory | 7,000 | Contingent Liability | 12,000 |
| Prepaid Insurance | 900 | Income tax payable | 14,500 |
| Total current assets | 236,068 | Interest payable | 750 |
| | | Notes Payable (current) | 48,014 |
| | | Total current liabilities | 105,064 |
| | | Notes payable (long-term) | 475,869 |
| | | Total liabilities | 580,933 |
| Long-term assets: | | | |
| Land | 500,000 | <u>Stockholders' Equity</u> | |
| Buildings | 800,000 | Common stock | 120,000 |
| Equipment | 62,000 | Additional Paid-in Capital | 904,000 |
| Accumulated depreciation | (25,250) | Retained earnings | 57,885 |
| | | Treasury Stock | (90,000) |
| | | Total stockholders' equity | 991,885 |
| | | Total liabilities and | |
| Total assets | \$1,572,818 | stockholders' equity | \$1,572,818 |

Additional Perspective 10-1 (in General Ledger, concluded)

| <u>Dec. 31, 2022</u> | <u>Debit</u> | <u>Credit</u> |
|--|----------------|----------------|
| Service Revenue | 44,500 | |
| Sales Revenue | 120,000 | |
| Interest Revenue | 120 | |
| Sales Discounts | | 350 |
| Retained Earnings | | 164,270 |
| <i>(Close revenue accounts)</i> | | |
| <u>Dec. 31, 2022</u> | | |
| Retained Earnings | 128,435 | |
| Cost of Goods Sold | | 38,500 |
| Depreciation Expense | | 17,250 |
| Insurance Expense | | 5,700 |
| Rent Expense | | 2,400 |
| Salaries Expense | | 24,000 |
| Supplies Expense | | 500 |
| Bad Debt Expense | | 2,400 |
| Repairs and Maintenance Expense | | 400 |
| Warranty Expense | | 4,000 |
| Loss | | 12,000 |
| Interest Expense | | 6,785 |
| Income Tax Expense | | 14,500 |
| <i>(Close expense accounts)</i> | | |
| <u>Dec. 31, 2022</u> | | |
| Retained Earnings | 11,400 | |
| Dividends | | 11,400 |
| <i>(Close dividends account)</i> | | |

Financial Analysis: American Eagle

AP10-2

Requirement 1

\$0.01 par value per share. The par value per share is listed in the stockholders' equity section of the balance sheet.

Requirement 2

249,566 shares (in thousands). The number of shares issued is listed in the stockholders' equity section of the balance sheet. This is the exact number. In the text, we estimated the number of shares outstanding as 249,600 which is the common stock amount of \$2,496 (rounded to the nearest thousand) divided by the \$0.01 par value.

Requirement 3

Yes, 72,250 shares (in thousands). The number of shares of treasury stock (in thousands) is listed in the stockholders' equity section of the balance sheet.

Requirement 4

\$90,858 (\$ in thousands). The cash dividends paid is listed in the retained earnings column of the statement of stockholders' equity. Be sure to find the cash dividends for the most recent year.

Financial Analysis: Buckle

AP10-3

Requirement 1

\$0.01 par value per share. The par value per share is listed in the stockholders' equity section of the balance sheet.

Requirement 2

48,816,170 shares. The number of shares issued is listed in the stockholders' equity section of the balance sheet.

Requirement 3

No. There is no treasury stock reported in the stockholders' equity section of the balance sheet.

Requirement 4

\$133,874 (\$ in thousands). The cash dividends paid is listed in the retained earnings column of the statement of stockholders' equity. Be sure to find the cash dividends for the most recent year.

Comparative Analysis: American Eagle vs. Buckle

AP10-4

(\$ in thousands)

Requirement 1

| | Net Income | ÷ | Average Stockholders' Equity | = | Return on Equity |
|----------------|---------------|---|-----------------------------------|---|------------------------|
| American Eagle | \$204,163 | ÷ | $(\$1,246,791 + \$1,204,569) / 2$ | = | 16.7% |
| Buckle | \$89,707 | ÷ | $(\$391,248 + \$430,539) / 2$ | = | 21.8% |

Buckle has a higher return on equity.

Requirement 2

| | Dividends Per Share | ÷ | Stock Price | = | Dividend Yield |
|----------------|--------------------------|---|----------------|---|-------------------|
| American Eagle | $\$90,858 / 177,316$ | ÷ | \$17.56 | = | 3.0% |
| Buckle | $\$133,874 / 48,816.170$ | ÷ | \$19.60 | = | 14.0% |

Buckle also has a higher dividend yield.

Requirement 3

| | Stock Price | ÷ | Earnings Per Share* | = | Price-Earnings Ratio |
|----------------|----------------|---|------------------------|---|-------------------------|
| American Eagle | \$17.56 | ÷ | \$1.15 | = | 15.27 |
| Buckle | \$19.60 | ÷ | \$1.86 | = | 10.54 |

*Basic earnings per share is found near the bottom of the income statement.

Buckle is trading at a much lower price per dollar of earnings.

Ethics

AP10-5

1. Yes.

With the gain included, pretax income will be \$3,330,000 (= \$3,250,000 + \$80,000 gain). This represents an 11% increase over prior year's pretax income of \$300,000. To receive the bonus, she needed to increase pretax income by only 10%.

2. As an increase to additional paid-in capital.

For treasury stock, any gain of the sale is reported as additional equity rather than a gain in calculating pretax income.

3. Yes.

By misclassifying the gain on the sale of treasury stock as part of pretax income, Brooke will receive a bonus equal to 15% of her salary. That's a bonus of \$60,000 (= \$400,000 × 15%). This is cash taken inappropriately from the company, reducing its ability to pay debt, pay salaries to other employees, pay dividends to shareholders, and purchase productive assets to ensure the company's future profitability.

4. No.

Even though Brooke feels it was her decision to buy the stock at \$42 and sell at \$50, this belief does not justify falsely reporting the transaction. Brooke could have used her own cash to make that investment, but she instead used the company's cash. As CEO, she is a steward of the company's resources, but she is not the owner. To the extent she uses the company's resources, then any gains are those of the company. Brooke also should not justify her decision based on her many years of devotion to the company and good decisions. To the extent she believes higher compensation is needed, then she should make that claim to the board.

Internet Research

AP10-6

This case provides an opportunity for students to learn more about Form 10-K, containing the annual report for publicly traded companies. It also introduces students to EDGAR, one of the largest sources of accounting information available on the internet. Finally, students gain an understanding of transactions that affect the statement of stockholders' equity. Answers to the assignment will vary depending on the 10-K filing chosen.

Written Communication

AP10-7

Requirement 1

Liabilities are the creditors' claims to resources. Stockholders' equity are the owners' claim to resources.

Requirement 2

The balance sheet has always distinguished between liabilities and stockholders' equity. Financial accounting information is designed to provide information useful to its two primary user groups, investors and creditors. Therefore, it makes sense to separate the owners' claim to resources from the creditors' claim to resources.

Requirement 3

Arguments in support of eliminating the distinction relate to the difficulty, in certain cases, in distinguishing between liabilities and stockholders' equity. For instance, preferred stock can be structured so that it is nearly identical to common stock by giving preferred stock voting rights and making it convertible to common stock at the option of the investor. On the other hand, preferred stock can also be structured so that it is like a bond with a fixed dividend payment and a mandatory redemption date similar to the interest payment and maturity date on bonds payable. Since preferred stock can fall anywhere along the line between common stock and bonds, it becomes difficult to maintain a distinction between liabilities and stockholders' equity.

Requirement 4

While answers to this question will vary, students should be able to defend their position.

Earnings Management

AP10-8

Requirement 1

| | Net Income | ÷ | Shares outstanding | = | Earnings Per Share |
|------------------------|-------------------|---|---------------------------|---|---------------------------|
| Before Purchase | \$878,000 | ÷ | 950,000 | = | \$0.92 |

| | Net Income | ÷ | Average Stockholders' Equity | = | Return on Equity |
|------------------------|-------------------|---|-------------------------------------|---|-------------------------|
| Before Purchase | \$878,000 | ÷ | $(\$4,425,000 + 4,000,000) / 2$ | = | 20.8% |

Requirement 2

| | Net Income | ÷ | Shares outstanding | = | Earnings Per Share |
|-----------------------|-------------------|---|---------------------------|---|---------------------------|
| After Purchase | \$878,000 | ÷ | $(950,000 + 850,000) / 2$ | = | \$0.98 |

| | Net Income | ÷ | Average Stockholders' Equity | = | Return on Equity |
|-----------------------|-------------------|---|-------------------------------------|---|-------------------------|
| After Purchase | \$878,000 | ÷ | $(\$4,425,000 + 3,000,000) / 2$ | = | 23.6% |

Requirement 3

Yes.

The purchase of stock near year-end improves earnings per share by reducing the number of outstanding shares used to calculate earnings per share. It also improves the return on equity by reducing the ending balance in stockholders' equity. Note that it will be difficult to maintain next year as the reduction in shares outstanding and average stockholders' equity comes at a cost—the increase in interest expense beginning next year due to the \$1 million loan at year-end. The loan also increases company risk.