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 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 10-8 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 government 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 × $11)	**33,000**	
Common Stock (3,000 shares × $0.01)		**30**
Additional Paid-in Capital (difference)		**32,970**
(Issue common stock above par)		

Brief Exercise 10-4 (LO 10-2)

Cash (1,000 shares × $30)	**30,000**	
Common Stock (1,000 shares × $1.00)		**1,000**
Additional Paid-in Capital (difference)		**29,000**
(Issue common stock above par)		

Cash (1,000 shares × $30)	**30,000**	
Common Stock		**30,000**
(Issue no-par value common stock)		

Brief Exercise 10-5 (LO 10-3)

Cash (1,000 shares × $32)	**32,000**	
Preferred Stock (1,000 shares × $0.01)		**10**
Additional Paid-in Capital (difference)		**31,990**
(Issue preferred stock above par)		

Brief Exercise 10-6 (LO 10-3)

Preferred Stock Features	Description
__c___ 1. Convertible	a. Prior unpaid dividends receive priority.
__b___ 2. Redeemable	b. Shares can be sold at a predetermined price.
__a___ 3. Cumulative	c. Shares can be exchanged for common stock.

Brief Exercise 10-7 (LO 10-3)

Preferred dividends in arrears for 2022 and 2023 ($7,000 × 2 years)	$14,000
Preferred dividends for 2024 (2,000 shares × 7% × $50 par value)	7,000
Remaining dividends to common stockholders	2,000
Total dividends	$23,000

Brief Exercise 10-8 (LO 10-4)

Treasury Stock (100 shares × $38)	**3,800**	
Cash		**3,800**
(Purchase treasury stock)		

Brief Exercise 10-9 (LO 10-4)

Cash (100 shares × $40)	**4,000**	
Treasury Stock (100 shares × $38)		**3,800**
Additional Paid-in Capital (100 shares × $2)		**200**
(Resell treasury stock above cost)		

Brief Exercise 10-10 (LO 10-4)

Cash (100 shares × $35)	**3,500**	
Additional Paid-in Capital (100 shares × $3)	**300**	
Treasury Stock (100 shares × $38)		**3,800**
(Resell treasury stock below cost)		

Brief Exercise 10-11 (LO 10-5)

Beginning Retained Earnings + Net Income – Dividends = Ending Retained Earnings

(a) No dividends: $425,000 + $100,000 − $0 = **$525,000**

(b) With dividends: $425,000 + $100,000 − $25,000 = **$500,000**

Brief Exercise 10-12 (LO 10-5)

<u>October 1</u>		
Dividends (4,000 shares × $0.75)	**3,000**	
Dividends Payable		**3,000**
(Declare cash dividends)		
<u>October 15</u>		
No Entry		
<u>October 31</u>		
Dividends Payable (4,000 shares × $0.75)	**3,000**	
Cash		**3,000**
(Pay cash dividends)		

Brief Exercise 10-13 (LO 10-6)

June 30

Stock Dividends (30,000 shares × $1.00)	**30,000**	
Common Stock		**30,000**
(Record 100% [large] stock dividend)		

Brief Exercise 10-14 (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 × 2 = 60,000
- Par value per share: $1.00 ÷ 2 = $0.50
- Market price per share: $35.00 ÷ 2 = $17.50

Brief Exercise 10-15 (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*	+

Brief Exercise 10-16 (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 10-17 (LO 10-8)

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

Brief Exercise 10-18 (LO 10-2)

Income Statement:	Revenues	−	Expenses	=	Net Income

Balance Sheet:	Assets	=	Liabilities	+	Stockholders' Equity
	+33,000				+30
	Cash				Common Stock
					+32,970
					Additional Paid-In Capital

Brief Exercise 10-19 (LO 10-4)

Income Statement:	Revenues	−	Expenses	=	Net Income

Balance Sheet:	Assets	=	Liabilities	+	Stockholders' Equity
	−3,800				−3,800
	Cash				Treasury Stock↑

Brief Exercise 10-20 (LO 10-4)

Income Statement:	Revenues	−	Expenses	=	Net Income

Balance Sheet:	Assets	=	Liabilities	+	Stockholders' Equity
	+4,000 Cash				+3,800 Treasury Stock↓
					+200 Additional Paid-In Capital

Brief Exercise 10-21 (LO 10-4)

Income Statement:	Revenues	−	Expenses	=	Net Income

Balance Sheet:	Assets	=	Liabilities	+	Stockholders' Equity
	+3,500 Cash				+3,800 Treasury Stock↓
					−300 Additional Paid-In Capital

Brief Exercise 10-22 (LO 10-5)

(1)

Income Statement:	Revenues	−	Expenses	=	Net Income

Balance Sheet:	Assets	=	Liabilities	+	Stockholders' Equity*
			+3,000		−3,000
			Dividends Payable		Dividends↑

* Dividends are initially recorded to the Dividends account for recordkeeping purposes, and then the Dividends account is closed to Retained Earnings at the end of the period.

(2)

Income Statement:	Revenues	−	Expenses	=	Net Income

Balance Sheet:	Assets	=	Liabilities	+	Stockholders' Equity
	−3,000		−3,000		
	Cash		Dividends Payable		

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)

Terms:
_d_ 1. Authorized Stock
_b_ 2. Issued Stock
_a_ 3. Outstanding Stock
_e_ 4. Preferred Stock
_c_ 5. Treasure Stock

Definitions:
a. Shares held by investors (shares issued that have not been repurchased by the corporation).
b. Shares that have been sold to investors.
c. Shares of a company's own stock that it has purchased.
d. Shares available to sell, stated in the company's articles of incorporation.
e. Shares that have preference over common stockholders to receive dividends.

Exercise 10-3 (LO 10-2)

Requirement 1

<u>January 1</u>		
Cash (700 shares × $50)	**35,000**	
Common Stock		**35,000**
(Issue no-par value common stock)		
<u>April 1</u>		
Cash (110 shares × $54)	**5,940**	
Common Stock		**5,940**
(Issue no-par value common stock)		

Requirement 2

<u>January 1</u>		
Cash (700 shares × $50)	**35,000**	
Common Stock (700 shares × $1.00)		**700**
Additional Paid-in Capital (difference)		**34,300**
(Issue common stock above par or stated value)		
<u>April 1</u>		
Cash (110 shares × $54)	**5,940**	
Common Stock (110 shares × $1.00)		**110**
Additional Paid-in Capital (difference)		**5,830**
(Issue common stock above par or stated value)		

Exercise 10-4 (LO 10-2)

Option a

Cash (100,000 shares × $50)	**5,000,000**	
Common Stock (100,000 shares × $1)		**100,000**
Additional Paid-in Capital (difference)		**4,900,000**
(Issue common stock above par)		

Option b

Cash (500,000 shares × $10)	**5,000,000**	
Common Stock (500,000 shares × $1)		**500,000**
Additional Paid-in Capital (difference)		**4,500,000**
(Issue common stock above par)		

Option c

Cash (1,000,000 shares × $5)	**5,000,000**	
Common Stock (1,000,000 shares × $1)		**1,000,000**
Additional Paid-in Capital (difference)		**4,000,000**
(Issue common stock above par)		

Exercise 10-5 (LO 10-3)

Requirement 1

Preferred dividends in arrears for 2023	$10,000
Preferred dividends for 2024 (2,000 shares × 5% × $100 par value)	10,000
Remaining dividends to common stockholders	2,000
Total dividends	$22,000

Requirement 2

Preferred dividends in arrears for 2023	$ 0
Preferred dividends for 2024 (2,000 shares × 5% × $100 par value)	10,000
Remaining dividends to common stockholders	12,000

Total dividends	$22,000

Exercise 10-6 (LO 10-2, 10-3, 10-5)

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

Exercise 10-7 (LO 10-2, 10-3, 10-4)

January 2, 2024	Debit	Credit
Cash (100,000 × $35)	**3,500,000**	
Common Stock (100,000 × $1)		**100,000**
Additional Paid-in Capital (difference)		**3,400,000**
(Issue common stock above par)		
February 6, 2024		
Cash (3,000 × $11)	**33,000**	
Preferred Stock (3,000 × $10)		**30,000**
Additional Paid-in Capital (difference)		**3,000**
(Issue preferred stock above par)		
September 10, 2024		
Treasury Stock (11,000 shares × $40)	**440,000**	
Cash		**440,000**
(Purchase treasury stock)		
December 15, 2024		
Cash (5,500 shares × $45)	**247,500**	
Treasury Stock (5,500 shares × $40)		**220,000**
Additional Paid-in Capital (5,500 × $5)		**27,500**
(Resell treasury stock above cost)		

Exercise 10-8 (LO 10-7)

Finishing Touches
Balance Sheet
(Stockholders' Equity Section)
December 31, 2024

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	3,560,500
Retained earnings	63,100 *
Treasury stock, 5,500 shares	(220,000)
Total stockholders' equity	$3,403,600

* $160,000 – ($94,500 + $2,400)

Exercise 10-9 (LO 10-5)

	Beginning Retained Earnings	Net income for the year	Dividends for the year	Ending Retained Earnings
a.	$320,000	$120,000	$20,000	**$420,000**
b.	$540,000	$230,000	**$70,000**	$700,000
c.	$290,000	**$120,000**	$50,000	$360,000
d.	**$350,000**	$170,000	$30,000	$490,000

Exercise 10-10 (LO 10-5)

Year	Net income (loss) for the year	Dividends for the year	Ending Retained Earnings
1	$(35,000)	$ 0	$(35,000)
2	52,000	0	17,000
3	87,000	20,000	84,000
4	128,000	20,000	192,000
5	153,000	25,000	320,000

Exercise 10-11 (LO 10-5)

	Debit	Credit
March 15		
Dividends (210 million shares × $0.125)	**26,250,000**	
Dividends Payable		**26,250,000**
(Declare cash dividends)		
March 30		
No Entry		
April 13		
Dividends Payable (210 million shares × $0.125)	**26,250,000**	
Cash		**26,250,000**
(Pay cash dividends)		

Exercise 10-12 (LO 10-2, 10-4, 10-5)

	Debit	Credit
March 1, 2024		
Cash (65,000 × $62)	**4,030,000**	
Common Stock (65,000 × $1)		**65,000**
Additional Paid-in Capital (difference)		**3,965,000**
(Issue common stock above par)		
May 10, 2024		
Treasury Stock (6,000 shares × $65)	**390,000**	
Cash		**390,000**
(Purchase treasury stock)		
June 1, 2024		
Dividends (159,000 shares × $2.00)	**318,000**	
Dividends Payable		**318,000**
(Declare cash dividends)		
July 1, 2024		
Dividends Payable (159,000 shares × $2.00)	**318,000**	
Cash		**318,000**
(Pay cash dividends)		
October 21, 2024		
Cash (3,000 shares × $70)	**210,000**	
Treasury Stock (3,000 shares × $65)		**195,000**
Additional Paid-in Capital (3,000 × $5)		**15,000**
(Resell treasury stock)		

Exercise 10-13 (LO 10-6)

Requirement 1

<u>September 1</u>		
Stock Dividends (10,000 × 10% × \$30)	**30,000**	
Common Stock (10,000 × 10% × \$1)		**1,000**
Additional Paid-in Capital (difference)		**29,000**
(Record 10% stock dividend, small stock dividend)		

Requirement 2

<u>September 1</u>		
Stock Dividends (10,000 shares × \$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 10-14 (LO 10-7)

Power Drive Corporation
Balance Sheet
(Stockholders' Equity Section)
December 31, 2024

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 10-15 (LO 10-7)

Power Drive Corporation
Statement of Stockholders' Equity
For the Year Ended December 31, 2024

	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 10-16 (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 10-17 (LO 10-7)

United Apparel
Balance Sheet
(Stockholders' Equity Section)
December 31, 2024

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 10-18 (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 10-19 (LO 10-8)

Requirement 1

($ in millions)	Net Income Minus Preferred Dividends	÷	Average Shares Outstanding	=	Earnings per Share
2023	($308 − $15)	÷	400	=	$0.7325
2024	($129 − $20)	÷	150	=	$0.7267

Earnings per share (EPS) is calculated as net income minus preferred dividends, divided by average shares outstanding. In 2023, EPS = ($308 − $15)/400 = $0.7325. In 2024, EPS = ($129 - $20)/150 = $0.7267. EPS did not increase in 2024.

Requirement 2

($ in millions)	Stock Price	÷	Earnings Per Share	=	Price-Earnings Ratio
2023	$10.97	÷	$0.7325	=	14.98
2024	$12.02	÷	$0.7267	=	16.54

The price-earnings ratio is calculated as stock price divided by earnings per share. In 2023, the price-earnings ratio = $10.97/$0.7325 = 14.98. In 2024, the price-earnings ratio = $12.02/$0.7267 = 16.54. The stock price in relation to earnings is lower in 2023.

Exercise 10-20

Requirement 1

January 2	Debit	Credit
Cash	**40,000**	
Common Stock		**2,000**
Additional Paid-in Capital		**38,000**
(Issue common stock)		

January 9	Debit	Credit
Accounts Receivable	**14,300**	
Service Revenue		**14,300**
(*Provide services on account*)		

January 10	Debit	Credit
Supplies	**4,900**	
Accounts Payable		**4,900**
(*Purchase supplies on account*)		

January 12	Debit	Credit
Treasury Stock	**18,000**	
Cash		**18,000**
(Purchase treasury stock)		

January 15	Debit	Credit
Accounts Payable	**16,500**	
Cash		**16,500**
(*Pay cash on account*)		

January 21	Debit	Credit
Cash	**49,100**	
Service Revenue		**49,100**
(*Provide services for cash)*		

January 22	Debit	Credit
Cash	**16,600**	
Accounts Receivable		**16,600**
(*Receive cash on account*)		

Exercise 10-20 (continued)
Requirement 1 (concluded)

January 29	Debit	Credit
Dividends	**3,300**	
Dividends Payable		**3,300**
(Declare cash dividends)		
(\$3,300=[10,000+2,000−1,000]×\$0.30)		

January 30	Debit	Credit
Cash	**12,000**	
Treasury Stock		**10,800**
Additional Paid-in Capital		**1,200**
(*Resell treasury stock*)		

January 31	Debit	Credit
Salaries Expense	**42,000**	
Cash		**42,000**
(*Pay monthly salaries*)		

Exercise 10-20 (continued)

Requirement 2

(a) January 31	Debit	Credit
Utilities Expense	**6,200**	
Utilities Payable		**6,200**
(*Adjust utilities*)		

(b) January 31	Debit	Credit
Supplies Expense	**7,300**	
Supplies		**7,300**
(*Adjust supplies*)		
(*$7,300 = $7,500+$4,900−$5,100*)		

(c) January 31	Debit	Credit
Depreciation Expense	**1,500**	
Accumulated Depreciation		**1,500**
(Record depreciation for January)		
($1,500 = [$64,000−$10,000] / 36 months)		

(d) January 31	Debit	Credit
Income Tax Expense	**2,000**	
Income Tax Payable		**2,000**
(*Adjust income taxes*)		

Exercise 10-20 (continued)

Requirement 3

Grand Finale Fireworks
Adjusted Trial Balance
January 31, 2024

Accounts	Debit	Credit
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	$264,700	$264,700

Exercise 10-20 (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 10-20 (continued)

Requirement 4

Grand Finale Fireworks
Income Statement
For the month ended January 31, 2024

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	$ 4,400

Requirement 5

Grand Finale Fireworks
Balance Sheet
January 31, 2024

Assets		**Liabilities**		
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	131,200	Income tax payable	2,000	
		Total current liabilities	14,500	
		Stockholders' Equity		
		Common stock	12,000	
		Additional paid-in capital	119,200	
		Retained earnings	46,200	*
Equipment	64,000	Treasury stock	(7,200)	
Less: Accumulated Depreciation	(10,500)	Total stockholders' equity	170,200	
Total assets	$184,700	Total liabilities and stockholders' equity	$184,700	

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

Exercise 10-20 (concluded)

Requirement 6

January 31, 2024	Debit	Credit
Service Revenue	63,400	
Retained Earnings		63,400
(*Close revenue accounts*)		
Retained Earnings	59,000	
Salaries Expense		42,000
Utilities Expense		6,200
Supplies Expense		7,300
Depreciation Expense		1,500
Income Tax Expense		2,000
(*Close expense accounts*)		
Retained Earnings	3,300	
Dividends		3,300
(*Close dividend account*)		

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, 2024 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 2024 is **better** than last year's average earnings per share.

PROBLEMS: SET A

Problem 10-1A (LO 10-1)

Terms

__f___	1. Cumulative.
__d__	2. Retained earnings.
__g__	3. Outstanding stock.
__h__	4. Limited liability.
__j__	5. Treasury stock.
__e__	6. Issued stock.
__i__	7. Angel investors.
__a__	8. Paid-in capital.
__b__	9. Authorized stock.
__c__	10. Redeemable.

Definitions

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

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

Requirement 1

Account	Debit	Credit
March 1, 2024		
Cash (1,100 × $42)	**46,200**	
Common Stock (1,100 × $0.01)		**11**
Additional Paid-in Capital (difference)		**46,189**
(Issue common stock)		
May 15, 2024		
Treasury Stock (400 shares × $35)	**14,000**	
Cash		**14,000**
(Purchase treasury stock)		
July 10, 2024		
Cash (200 shares × $40)	**8,000**	
Treasury Stock (200 shares × $35)		**7,000**
Additional Paid-in Capital (200 × $5)		**1,000**
(Resell treasury stock above cost)		
October 15, 2024		
Cash (200 × $45)	**9,000**	
Preferred Stock (200 × $1)		**200**
Additional Paid-in Capital (difference)		**8,800**
(Issue preferred stock)		
December 1, 2024		
Dividends (5,400 shares × $0.50)	**2,700**	
Dividends Payable		**2,700**
(Declare cash dividends)		
December 31. 2024		
Dividends Payable (5,400 shares × $0.50)	**2,700**	
Cash		**2,700**
(Pay cash dividends)		

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 (×1,000).

Requirement 2

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

Requirement 3

$50 per share. The total paid-in capital for common stock is $900,000 (30,000 × $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	(30)
= Retained earnings, ending	$288

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, 2024

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, 2024

	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

	Debit	Credit
January 2, 2024		
Cash (110,000 × $70)	**7,700,000**	
Common Stock (110,000 × $1)		**110,000**
Additional Paid-in Capital (difference)		**7,590,000**
(Issue common stock above par)		
February 14, 2024		
Cash (60,000 × $12)	**720,000**	
Preferred Stock (60,000 × $10)		**600,000**
Additional Paid-in Capital (difference)		**120,000**
(Issue preferred stock above par)		
May 8, 2024		
Treasury Stock (11,000 shares × $60)	**660,000**	
Cash		**660,000**
(Purchase treasury stock)		
May 31, 2024		
Cash (5,500 shares × $65)	**357,500**	
Treasury Stock (5,500 shares × $60)		**330,000**
Additional Paid-in Capital (5,500 shares × $5)		**27,500**
(Resell treasury stock above cost)		
December 1, 2024		
Dividends [(104,500 shares × $0.25) + $36,000]	**62,125**	
Dividends Payable		**62,125**
(Declare cash dividends)		
December 30, 2024		
Dividends Payable	**62,125**	
Cash		**62,125**
(Pay cash dividends)		

Requirement 2

Major League Apparel
Balance Sheet
(Stockholders' Equity Section)
December 31, 2024

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	8,447,500
Retained earnings	427,875*
Treasury stock, 5,500 shares	(330,000)
Total stockholders' equity	$8,545,375

*$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's ROE is higher than Zoom's and lower than Microsoft's.

Requirement 2

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

Khaki Republic's dividend yield is higher than Zoom and Microsoft. Zoom does not have a dividend yield because the company does not pay dividends.

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 Zoom and Microsoft.

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

	Debit	Credit
March 1, 2024		
Cash (3,000 × $10)	**30,000**	
Common Stock (3,000 × $1.00)		**3,000**
Additional Paid-in Capital (difference)		**27,000**
(Issue common stock)		
April 1, 2024		
Cash (175 shares × $40)	**7,000**	
Preferred Stock (175 shares × $10)		**1,750**
Additional Paid-in Capital (difference)		**5,250**
(Issue preferred stock)		
June 1, 2024		
Dividends (6,300 shares × $0.25)	**1,575**	
Dividends Payable		**1,575**
(Declare cash dividends)		
June 30, 2024		
Dividends Payable (6,300 shares × $0.25)	**1,575**	
Cash		**1,575**
(Pay cash dividends)		
August 1, 2024		
Treasury Stock (175 shares × $7)	**1,225**	
Cash		**1,225**
(Purchase treasury stock)		
October 1, 2024		
Cash (125 shares × $9)	**1,125**	
Treasury Stock (125 shares × $7)		**875**
Additional Paid-in Capital (125 shares × $2)		**250**
(Resell treasury stock above cost)		

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)

	Before	After 100% Stock Dividend	After 2-for-1 Stock Split
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	$51,001	$51,001	$51,001
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 par value per share) in thousands (×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	?
= Retained earnings, ending	$53,000,000

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

Requirement 5

185,000 shares = ($3,700 / $20 per share) in thousands (×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

Nautical
Balance Sheet
(Stockholders' Equity Section)
December 31, 2024

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, 2024

	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

	Debit	Credit
February 2, 2024		
Cash (1,500,000 × $35)	**52,500,000**	
Common Stock (1,500,000 × $5)		**7,500,000**
Additional Paid-in Capital (difference)		**45,000,000**
(Issue common stock above par)		
February 4, 2024		
Cash (600,000 × $23)	**13,800,000**	
Preferred Stock (600,000 × $20)		**12,000,000**
Additional Paid-in Capital (difference)		**1,800,000**
(Issue preferred stock above par)		
June 15, 2024		
Treasury Stock (150,000 shares × $30)	**4,500,000**	
Cash		**4,500,000**
(Purchase treasury stock)		
August 15, 2024		
Cash (112,500 shares × $45)	**5,062,500**	
Treasury Stock (112,500 shares × $30)		**3,375,000**
Additional Paid-in Capital (112,500 × $15)		**1,687,500**
(Resell treasury stock above cost)		
November 1, 2024		
Dividends (1,462,500 shares × $1.50) + $480,000)	**2,673,750**	
Dividends Payable		**2,673,750**
(Declare cash dividends)		
November 30, 2024		
Dividends Payable	**2,673,750**	
Cash		**2,673,750**
(Pay cash dividends)		

Problem 10-6B (Continued)

Requirement 2

National League Gear
Balance Sheet
(Stockholders' Equity Section)
December 31, 2024

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	67,987,500
Retained earnings*	2,226,250
Treasury stock, 37,500 shares	(1,125,000)
Total stockholders' equity	$69,088,750

* $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 Zoom but a lower return on equity than Microsoft.

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 Zoom or Microsoft. Zoom 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 Zoom or Microsoft.