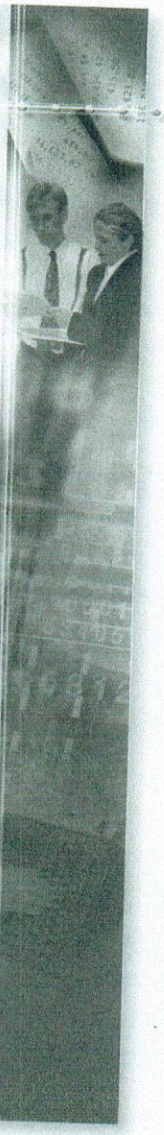
CHAPTER 12

# Study Guide and Assessment

## Living in the Real World

### Life after Working Shifts



**Deciding to Spend or Invest** Whether you're a saver or a spender, it's part of your personality. Being a saver or a spender isn't good or bad on its own, but either personality can cause problems if not managed properly. Here's a chance to test your financial personality.

Pretend someone gave you $200, what would you do with it? Read the options below and choose three.

_____ Take my closest friend out to eat and to the movies. (5 points)
_____ Spend $50 on fun items and save the rest. (3 points)
_____ Put the money toward my next vehicle payment. (1 point)
_____ Buy new clothes for school. (3 points)
_____ Hit the nearest music store and buy several CDs. (5 points)
_____ Buy a portable CD player. (3 points)
_____ Get a cell phone. (5 points)
_____ Buy a savings bond. (1 point)
_____ Put it in a savings account for future education. (1 point)
_____ Buy the hottest new concert tickets. (5 points)

What do your choices say about you?

**Big Saver:** If you scored 3–5 points, you're willing to give up things today so you can buy something you want more tomorrow.

**Middle of the Roader:** If you scored 7–11 points, you know how to use your money for current needs while keeping an eye on the future.

**Big Spender:** If you scored 13–15 points, wow . . . do you like to spend money!

## After YOU READ

### REVIEW OF KEY WORDS

certificate of deposit (p. 394)
annual yield (p. 397)
stocks (p. 400)
stock certificate (p. 400)
dividend (p. 403)
profit (p. 406)
loss (p. 406)
bonds (p. 409)

**For Problems 1–8, write your own definitions for the terms above.**

# Skills and Concepts

## SECTION OBJECTIVE 12-1 AND EXAMPLES

**Use tables to compute the interest on certificates of deposit.**

**Celine Hocking invests $3,500 in a 1-year certificate of deposit that earns interest at an annual rate of 4.5 percent compounded quarterly. How much interest will she earn at the end of 1 year?**

**STEP 1:** Find the amount.

| Original Principal | × | Amount per $1.00 | | |
|---|---|---|---|---|
| $3,500 | × | 1.045765 | = | $3,660.18 amount |

**STEP 2:** Find the interest earned.

| Amount | − | Original Principal | | |
|---|---|---|---|---|
| $3,660.18 | − | $3,500.00 | = | **$160.18 interest earned** |

### REVIEW EXERCISES

**Use the Amount of $1.00 Invested—Daily, Monthly, and Quarterly Compounding table on page 800 to find the amount per $1.00 invested.**

| | Annual Rate | Interest Period | Original Principal | Amount per $1.00 | Amount | Interest Earned |
|---|---|---|---|---|---|---|
| 9. | 3.00% | 1 year; monthly | $ 6,500 | a. | b. | c. |
| 10. | 3.75% | 4 years; daily | 10,000 | a. | b. | c. |
| 11. | 5.25% | 1 year; daily | 3,500 | a. | b. | c. |
| 12. | 4.25% | 4 years; monthly | 90,000 | a. | b. | c. |
| 13. | 4.00% | 4 years; quarterly | 35,000 | a. | b. | c. |

## SECTION OBJECTIVE 12-2 AND EXAMPLES

**Determine the effective annual yield.**

**Andy Eyre invested $3,000 in a CD for 1 year. The certificate earns interest at an annual rate of 5.00 percent compounded monthly. What is the effective annual yield rounded to the nearest thousandth of a percent?**

**STEP 1:** Find the interest for 1 year. (Refer to the Amount of $1.00 Invested—Daily, Monthly, and Quarterly Compounding table on page 800.)

$3,000 × 1.051162 = $3,153.49

| Amount | − | Principal | | |
|---|---|---|---|---|
| $3,153.49 | − | $3,000.00 | = | $153.49 interest for 1 year |

**STEP 2:** Find the effective annual yield.

$$\frac{\text{Interest for 1 Year}}{\text{Principal}} \quad \frac{\$153.49}{\$3{,}000.00} = 0.05116 \text{ or } 5.116\% \text{ effective annual yield}$$

### REVIEW EXERCISES

Use the Amount of $1.00 Invested—Daily, Monthly, and Quarterly Compounding table on page 800 to find the amount per $1.00 invested.

| | Annual Rate | Interest Period | Original Principal | Amount per $1.00 | Amount | Interest Earned | Effective Annual Yield |
|---|---|---|---|---|---|---|---|
| 14. | 3.50% | 1 year; monthly | $ 8,500 | a. | b. | c. | d. |
| 15. | 5.25% | 1 year; quarterly | 4,500 | a. | b. | c. | d. |
| 16. | 2.50% | 4 years; daily | 15,000 | a. | b. | c. | d. |
| 17. | 4.75% | 4 years; quarterly | 25,500 | a. | b. | c. | d. |
| 18. | 3.25% | 1 year; daily | 2,300 | a. | b. | c. | d. |
| 19. | 2.00% | 1 year; monthly | 10,000 | a. | b. | c. | d. |

## SECTION OBJECTIVE 12-3 AND EXAMPLES

**Solve for the total cost of a stock investment.**

**Derek Abreu purchased 200 shares of stock at $35.11 per share. His full-service stockbroker charged a $50.00 commission for the transaction. What is the total amount he paid for the stock?**

**STEP 1:** Find the cost of a stock.

$$\text{Number of Shares} \times \text{Cost per Share}$$
$$200 \times \$35.11 = \$7{,}022.00$$

**STEP 2:** Find the total paid.

$$\text{Cost of Stock} + \text{Commission}$$
$$\$7{,}022.00 + \$50.00 = \$7{,}072.00 \text{ total paid}$$

### REVIEW EXERCISES

| | Company | Number of Shares | Cost per Share | Cost of Stock | Commission | Total Paid |
|---|---|---|---|---|---|---|
| 20. | Forestry Inc. | 1,000 | $59.14 | a. | $ 7.00 | b. |
| 21. | Safety Lmt. | 150 | 48.79 | a. | 50.00 | b. |
| 22. | Ross Bank | 55 | 53.30 | a. | 12.99 | b. |
| 23. | Cantwell Co. | 2,300 | 59.09 | a. | 39.50 | b. |
| 24. | Ott & Assoc | 850 | | | | |

## SECTION OBJECTIVE 12-4 AND EXAMPLES

**Compute the annual yield and annual dividend of a stock investment.**

**Patty Slade bought 250 shares of Pine Nursery stock at $32.57 per share. The company paid annual dividends of $1.12 per share. What is the total annual dividend? What is the annual yield to the nearest hundredth of a percent?**

**STEP 1:** Find the annual dividend.

| Annual Dividend per Share | × | Number of Shares | |
|---|---|---|---|
| $1.12 | × | 250 | = **$280 annual dividend** |

**STEP 2:** Find the annual yield.

| Annual Dividend per Share | ÷ | Cost per Share | |
|---|---|---|---|
| $1.12 | ÷ | $32.57 | = **0.034387 or 3.44% annual yield** |

### REVIEW EXERCISES

**26.** Julian Lopez bought 50 shares of stock at $38.00 per share. The company paid annual dividends of $0.52 per share. What is the total annual dividend? What is the annual yield to the nearest hundredth of a percent?

**27.** Rose Wallace owns 200 shares of stock. The stock ranged from a low of $44.45 to a high of $54.54 last year. The annual dividend is $2.31 per share. What is the annual yield based on the high and the low? What is the total annual dividend?

| | Stock | Annual Dividend per Share | Cost per Share | Annual Yield |
|---|---|---|---|---|
| **28.** | Stone Products | $0.60 | $ 38.00 | |
| **29.** | OFA Education | 1.40 | 57.36 | |
| **30.** | Lazenby Inc. | 1.36 | 34.86 | |
| **31.** | Cornell Supply | 2.48 | 121.93 | |

## SECTION OBJECTIVE 12-5 AND EXAMPLES

**Calculate the profit or loss from a stock sale.**

**Frank Walden paid a total of $3,066.54 for 88 shares of stock. He sold the stock for $57.10 per share and paid a sales commission of $49.50. What is the profit or loss from the sale?**

**STEP 1:** Find the net sale.

| Amount of Sale | − | Commission | |
|---|---|---|---|
| ($57.10 × 88) | − | $49.50 | |
| $5,024.80 | − | $49.50 | = $4,975.30 |

**STEP 2:** Is the net sale greater than total paid?

**Yes, $4,975.30 is greater than $3,066.54.**

**STEP 3:** Find the profit.

| Net Sale | − | Total Paid | |
|---|---|---|---|
| $4,975.30 | − | $3,066.54 | = **$1,908.76 profit** |

# Study Guide and Assessment

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## REVIEW EXERCISES

| | Stock | Total Paid | Selling Price per Share | Number of Shares | Commission | Net Sale | Profit or Loss |
|---|---|---|---|---|---|---|---|
| 32. | Tanner Co. | $ 6,787 | $26.42 | 150 | $39.95 | a. | b. |
| 33. | Maloney Inc. | 5,800 | 39.01 | 200 | 45.50 | a. | b. |
| 34. | Elden Mfg. | 24,000 | 42.12 | 600 | 9.99 | a. | b. |
| 35. | S&R Electric | 1,800 | 10.52 | 50 | 12.50 | a. | b. |
| 36. | PAE Internet | 4,800 | 58.87 | 100 | 55.00 | a. | b. |
| 37. | Aquailla Imp. | 3,250 | 11.70 | 250 | 7.00 | a. | b. |

**38.** Carlos and Jade Enrique bought 2,000 shares of stock at $18.80 a share and paid a sales commission of $50.00 plus $0.02 a share. They sold the stock at $21.95 per share plus a sales commission of $45.00 plus $0.03 per share. What was the net amount of the sale? What was the profit or loss from the sale?

## SECTION OBJECTIVE 12-6 AND EXAMPLES

**Compute the annual interest and annual yield of a bond investment.**

**Graeme Williams purchased a $1,500 bond at the quoted price of $79\frac{3}{4}$. The bond paid interest at a rate of 5 percent. What is the annual yield to the nearest hundredth of a percent?**

**STEP 1: Find the annual interest.**

Face Value × Interest Rate

$1,500 × 5% = $75 annual interest

**STEP 2: Find the bond cost.**

Face Value × Percent

$1,500 × 79.75% = $1,196.25 bond cost

**STEP 3: Find the annual yield.**

$$\frac{\text{Annual Interest}}{\text{Bond Cost}} = \frac{\$75}{\$1{,}196.25} = \textbf{0.06269 or 6.27\% annual yield}$$

## REVIEW EXERCISES

**Find the bond cost and annual yield.**

| | Source | Face Value of Bond | Quoted Price | Cost of Bond | Interest Rate | Annual Interest | Annual Yield |
|---|---|---|---|---|---|---|---|
| 39. | Diamond Co. | $ 3,000 | 103.50 | a. | 4.50% | b. | c. |
| 40. | Gable Inc. | 1,000 | 82.90 | a. | 3.25% | b. | c. |
| 41. | Lawns Inc. | 5,000 | 75.25 | a. | 2.50% | b. | c. |
| 42. | Bunde Sales | 2,000 | 96.50 | a. | 5.50% | b. | c. |