PART **2**

Personal Finance

Chapter

How do you make a budget?

All in the same weekend, you graduated from high school and you landed a job. Now you can afford to find a place of your own. But wait . . . how much rent can you afford every month? Making a budget can help you live and spend within your means.

Practicing Life Skills LAB

Procedure

1. **The Dream Pad** Look through a local newspaper or an online classified section to find an apartment in an area where you'd like to live. Do you have a new city in mind? Have you always wanted to live in the trendy neighborhood above a coffee shop? Or what about a loft overlooking the city? How many rooms would your ideal apartment have?

2. **You've Got Expenses** Make a list of other expenses such as food, utilities, transportation, laundry, and entertainment. Ask family and friends about the average costs of these expenses.

3. **Track Your Spending** Complete a spreadsheet or a chart (like the one below) to show how you might spend your net monthly income.

Where Your Money Is Going		
	Expense	Amount
1	Rent	$600.00
2	Food	$100.00
3	Utilities	$250.00
4	Transportation	$100.00
5	Laundry	$ 50.00
6	Entertainment	$100.00
		$1,200.00
Total		

Monthly Budget

Analysis

- Why is it beneficial to write a budget?
- If your net pay is reduced to $1,000, what adjustments could you make to balance your budget?
- Would computerized, personal finance software help you maintain a budget? Explain.

CHAPTER 1

Gross Income

What You'll Learn

Section 1-1 Calculate straight-time pay.

Section 1-2 Figure out straight-time, overtime, and total pay.

Section 1-3 Calculate the total hours on a weekly time card.

Section 1-4 Compute the total pay on a piecework basis.

Section 1-5 Determine the salary per pay period.

Section 1-6 Calculate the straight commission and determine the gross pay.

Section 1-7 Compute the total graduated commission.

When Will You Ever Use This?

People rarely work for free, unless it's a volunteer opportunity or an internship. So when you do work and get paid, it's important to know how to compute your gross income. You'll want to receive all the money you've earned.
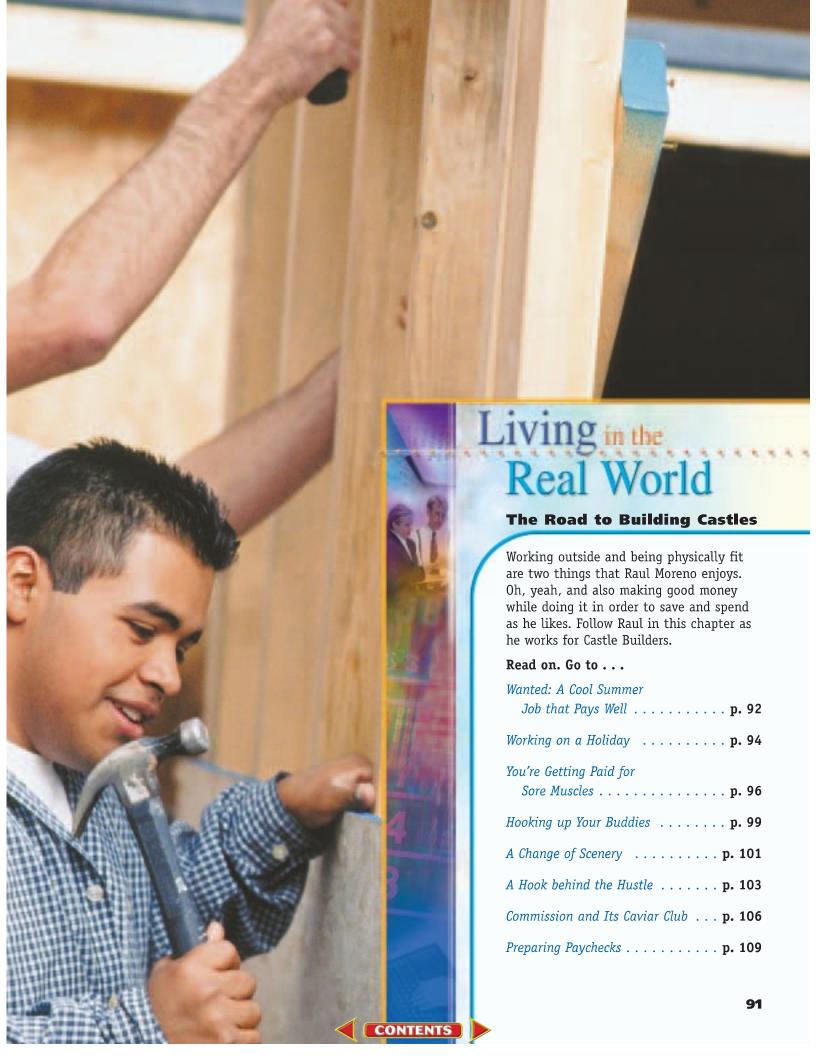
Key Words to Know

- hourly rate
- straight-time pay
- overtime pay
- time and a half
- double time
- weekly time card
- piecework
- salary
- commission
- commission rate
- straight commission
- graduated commission

Mathematics Online

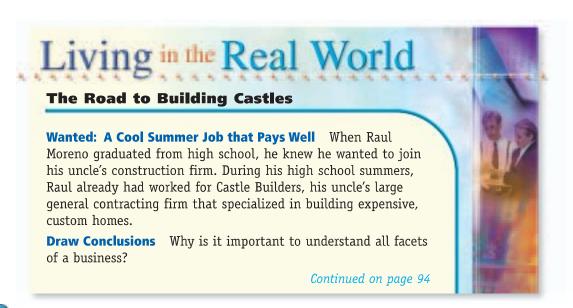To learn more about gross income, visit **busmath.glencoe.com**.

Living in the Real World

The Road to Building Castles

Working outside and being physically fit are two things that Raul Moreno enjoys. Oh, yeah, and also making good money while doing it in order to save and spend as he likes. Follow Raul in this chapter as he works for Castle Builders.

Read on. Go to . . .

Calculate straight-
time pay.

Some jobs pay you a fixed amount of money for each hour you work. For
example, the local cinema might pay you $7.50 an hour to sweep up popcorn and
tear ticket stubs. The $7.50 is the **hourly rate** the cinema pays you per hour.
Now, the manager has penciled you in to work 15 hours a week. These 15 hours
are important for you to calculate your **straight-time pay**, or the total amount
of money you earn for a pay period at the hourly rate. The important formula to
remember is:

Straight-Time Pay = Hourly Rate × Hours Worked

Living in the Real World

The Road to Building Castles

Wanted: A Cool Summer Job that Pays Well   When Raul
Moreno graduated from high school, he knew he wanted to join
his uncle's construction firm. During his high school summers,
Raul already had worked for Castle Builders, his uncle's large
general contracting firm that specialized in building expensive,
custom homes.

Draw Conclusions   Why is it important to understand all facets
of a business?

Need Help? Go to...

Example 1

**Shawna Jackson is a mail clerk. She earns $8.40 per hour. Last week she worked
40 hours, and this week she worked $39\frac{1}{2}$ hours. What is her straight-time pay
for each week?**

STEP: **Find the straight-time pay.**

	Hourly Rate	×	Hours Worked	=	Straight-Time Pay
Last week	$8.40	×	40	=	$336.00
This week	8.40	×	$39\frac{1}{2}$	=	331.80

CONCEPT CHECK

SELF-CHECK ✔

**Complete the problems, then check your answers at the end of the chapter.
Find the straight-time pay.**

1. $7.60 per hour × 40 hours   **2.** $7.90 per hour × 37 hours

CONTENTS

	Employee	Regular Hourly Rate	×	Hours Worked	=	Straight-Time Pay
3.	Wright, S.	$ 8.00	×	36	=	
4.	Reardon, E.	7.50	×	18	=	
5.	Levitt, R.	16.20	×	30	=	
6.	Maguire, M.	10.25	×	$24\frac{1}{2}$	=	
7.	Reyes, A.	14.525	×	31.125	=	
8.	Vadola, G.	26.675	×	25.625	=	

9. You earn $6.50 per hour and work 30 hours this week. What is your straight-time pay?

10. A local car wash pays you $8.00 per hour. Last summer you worked 35.25 hours a week. What was your total straight-time pay for the entire week?

11. Renaldo Scanlon is a financial consultant. He earns $25.00 per hour and works 32.5 hours a week. What is his straight-time pay?

12. Marian Abelt likes being a mail clerk. She earns $8.125 per hour and her boss allows her to work flexible hours. Last week she worked 35.525 hours. What was her straight-time pay?

13. Sylvia O'Keefe is a teacher's aide. She earns $12.80 per hour. Last week she worked 34 hours. What was her straight-time pay for last week?

14. Tanaka Madison has a part-time job. She earns $7.75 per hour. She works 20 hours each week. What is her straight-time pay for a week?

15. Don Moline, a construction worker, earns $18.25 per hour. He worked his regular 36 hours last week. What was his straight-time pay?

16. Dominic Marzetti is a machine operator at the Donovan Manufacturing Corporation. He works 37.875 hours per week and earns $9.755 per hour. What is his straight-time pay each week?

17. A banjo player earns $8.50 per hour for playing at the local coffee shop 10 hours a week. What is the musician's straight-time pay?

Write the fractions as decimals.

18. $\frac{1}{4}$　　　　　　**19.** $\frac{1}{2}$　　　　　　**20.** $\frac{3}{4}$

Multiply the numbers. Round the answers to the nearest cent.

21. $4.50 × 30.25　　**22.** $8.30 × 3.25　　**23.** $14.50 × 32.5

Round to the place value that is indicated. Round to the nearest ten.

24. 22　　　　　　**25.** 138　　　　　　**26.** 8

Round to the nearest hundred.

27. 91　　　　　　**28.** 3,092　　　　　　**29.** 14,431

Round to the nearest thousand.

30. 15,374　　　　**31.** 722　　　　　　**32.** 158,481

◀ **CONTENTS** ▶
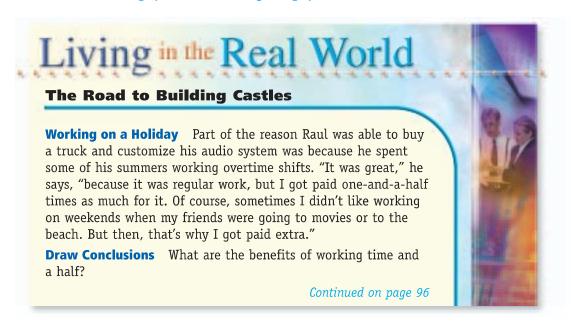
Overtime Pay

When you work more than your regular hours, you might receive **overtime pay** . The overtime rate might be $1\frac{1}{2}$ times your hourly rate. This is called **time and a half** . You may receive **double time** , or two times your regular hourly rate. Often times employers pay this overtime for Sundays and for holidays. To figure out your overtime pay, remember this:

Overtime Pay = Overtime Rate × Overtime Hours Worked

Total Pay = Straight-Time Pay + Overtime Pay

(Note: The total pay is often called gross pay.)

Living in the Real World

The Road to Building Castles

Working on a Holiday   Part of the reason Raul was able to buy a truck and customize his audio system was because he spent some of his summers working overtime shifts. "It was great," he says, "because it was regular work, but I got paid one-and-a-half times as much for it. Of course, sometimes I didn't like working on weekends when my friends were going to movies or to the beach. But then, that's why I got paid extra."

Draw Conclusions   What are the benefits of working time and a half?

Example 1

Alonso Perez is paid $8.20 an hour for a regular 40-hour week. His overtime rate is $1\frac{1}{2}$ times his regular hourly rate. This week Perez worked his regular 40 hours plus 10 hours of overtime. What is his total pay?

STEP 1: Find the straight-time pay.
   Hourly Rate × Regular Hours Worked
   $8.20   ×   40   = $328.00 straight-time pay

STEP 2: Find the overtime pay.
   Overtime Rate × Overtime Hours Worked
   (1.5 × $8.20) ×   10   = $123.00 overtime pay

STEP 3: Find the total pay.
   Straight-Time Pay + Overtime Pay
   $328.00   + $123.00   = **$451.00 total pay**

8.20 ✕ 40 =

328 M+ 1.5 ✕ 8.20 ✕ 10 = 123 M+ RM 451

SELF-CHECK ✔

Complete the problems, then check your answers at the end of the chapter. Find the total pay.

1. Josie Spelling earns $9.00 per hour and works 40 hours per week. Because she had to work on Thanksgiving, her employer paid her time and a half for the additional 6 hours she put in.

2. Eddie Lange earns $11.50 per hour. He worked 40 hours, plus time and a half for 7 hours.

SECTION 1-2 PRACTICE

	Hourly Pay (40 hours)	Straight-Time Pay		Overtime Rate	Overtime Hours	Overtime Pay		Total Pay	
3.	$ 6.00	a.		$1\frac{1}{2}$	8	b.		c.	
4.	10.60	a.		$1\frac{1}{2}$	5	b.		c.	
5.	6.80	a.		$1\frac{1}{2}$	4	b.		c.	
6.	5.55	a.		2	8	b.		c.	
7.	17.00	a.		2	13	b.		c.	
8.	19.125	a.		$1\frac{1}{2}$	6.25	b.		c.	

9. Steven Kellogg, a machine operator, works at an hourly rate of $10.60 and earns time and a half if he works any overtime. Given this, last week he worked 37 hours plus 8 hours overtime. What is his straight-time pay? What is his overtime pay? What is his total pay?

10. Dorothy Kaatz, a computer programmer, earns a regular hourly rate of $15.25 and earns double that when she works overtime. Kaatz usually works 40 regular hours and 12 hours overtime while she's trying to update the company's systems before the month's end. What is her straight-time pay? What is her overtime pay? What is her total pay?

11. Cindy Haskins is paid $8.00 an hour for a regular 35-hour week. Her overtime rate is $1\frac{1}{2}$ times her regular hourly rate. This week Haskins worked her regular 35 hours plus 8 hours of overtime. What is her total pay?

12. As a case manager, Bonnie Zoltowski earns $13.47 an hour plus time and a half for weekend work. Last week she worked her regular 40 hours plus 8 hours of overtime on the weekend. What was her total pay for the week?

MAINTAINING YOUR SKILLS

Need Help? Go to...

► **Skill 5: Adding Decimals,** page 732
► **Skill 8: Multiplying Fractions,** page 735
► **Skill 14: Changing Fractions/Decimals,** page 741

Add.

13.	$42.50	14.	$160.45	15.	$10.62	16.	$56.7
	+ 24.76		+ 86.90		9.34		0.007
					+ 0.45		121.33
							+ 1,568.125

Use multiplication to solve Problems 17–20.

17. $(1\frac{1}{2} \times \$8.40) \times 7$

18. $(2 \times \$18.40) \times 12$

19. $(1\frac{1}{4} \times \$6.00) \times 9$
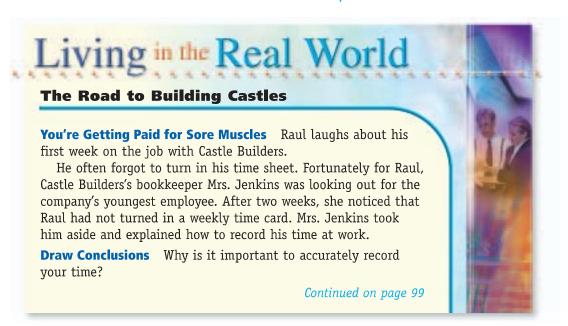
20. $(1.5 \times \$12.50) \times 8$

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SECTION (1-3) Weekly Time Card

At your job at the cinema, you're required to keep track of your hours on a **weekly time card** . This shows the time you reported for work and the time you departed each day of the week. Each day you compute the hours worked. The daily hours are added to give you the total number of hours worked that week. Round to the nearest quarter hour if you don't work an entire hour. Remember that:

Total Hours = Sum of Daily Hours

Living in the Real World

The Road to Building Castles

You're Getting Paid for Sore Muscles   Raul laughs about his first week on the job with Castle Builders.
   He often forgot to turn in his time sheet. Fortunately for Raul, Castle Builders's bookkeeper Mrs. Jenkins was looking out for the company's youngest employee. After two weeks, she noticed that Raul had not turned in a weekly time card. Mrs. Jenkins took him aside and explained how to record his time at work.

Draw Conclusions   Why is it important to accurately record your time?

Example 1

Gail Stough is required to keep a weekly time card. What are her daily hours for September 18? What are her total hours for the week?

Figure 1.1

	DATE	IN	OUT	IN	OUT	HOURS
Employee Time Card						
Employee Name: Gail Stough				Department: Credit		
Sun.						
Mon.	9/15	8:15	12:15	1:00	5:00	8
Tue.	9/16	8:30	12:00	12:35	5:20	$8\frac{1}{4}$
Wed.	9/17	8:28	12:05	12:30	4:30	$7\frac{1}{2}$
Thur.	9/18	8:15	1:45	2:15	4:59	$8\frac{1}{4}$
Fri.	9/19	8:30	12:20	12:50	5:00	8
Sat.						
Employee Signature: Gail Stough				TOTAL HOURS		40

◄ **CONTENTS** ►

STEP 1: **Find the hours worked on September 18.**

    A. Time between 8:15 A.M. and 1:45 P.M. (This is before lunch.)
       When the start time is prior to 1:00 and the end time is 1:00
       or later, add 12:00 to the end time.

$$(1:45 + 12:00) \quad - \quad 8:15$$
$$13:45 \quad - \quad 8:15 \quad 5h{:}30min$$

    B. Time between 2:15 P.M. and 4:59 P.M. (After lunch.)

$$4:59 \quad - \quad 2:15 \quad 2h{:}44min$$
$$5h{:}30min \quad + \quad 2h{:}44min \quad 7h{:}74min$$

    (Round to the nearest quarter hour) $= 8\frac{1}{4}$ **hours**

STEP 2: **Find the total hours for the week.**

Sum of daily hours

$$8 + 8\frac{1}{4} + 7\frac{1}{2} + 8\frac{1}{4} + 8$$

$$8 + 8\frac{1}{4} + 7\frac{1}{2} + 8\frac{1}{4} + 8 = \ 39 + \frac{4}{4} = \textbf{40 total hours}$$

CONCEPT CHECK

Complete the problems, then check your answers at the end of the chapter. Find the total number of hours for each person.

1. Regina Blanco worked from 8:00 to 10:45 and from 12:30 to 4:15.

2. Ruth Abet worked from 7:30 to 11:55 and from 1:00 to 4:50.

SECTION 1-3 PRACTICE

Eddie Irwin works as a computer operator in the data processing department at Needham Medical Center. He is required to keep a weekly time card. What are his hours for each day? What are his total hours for the week?

Figure 1.2

Employee Time Card				Needham Medical Center		

Employee Name: **Eddie Irwin**   Department: **Data Processing**

	DATE	IN	OUT	IN	OUT	TOTAL
Sun.						
3. Mon.	12/13	8:15 A.M.	12:00 P.M.	12:30 P.M.	4:30 P.M.	
4. Tue.	12/14	8:30 A.M.	12:30 P.M.	1:10 P.M.	5:10 P.M.	
5. Wed.	12/15	8:35 A.M.	12:50 P.M.	1:30 P.M.	5:00 P.M.	
6. Thur.	12/16	8:15 A.M.	12:10 P.M.	12:45 P.M.	4:20 P.M.	
7. Fri.	12/17	8:25 A.M.	1:15 P.M.	1:50 P.M.	5:30 P.M.	
Sat.						

8. Employee Signature: *Eddie Irwin*   **TOTAL HOURS**

CONTENTS

9. Gail Stough earns $8.40 per hour. Use her time card (see **Figure 1.1** on page 96) to find her total pay for the week.

10. Eddie Irwin is paid $7.25 for a regular 37-hour week. His overtime rate is $1\frac{1}{2}$ times his regular hourly rate. Use his time card (see **Figure 1.2** on page 97) to find his total pay for the week.

11. You are scheduled to work from 7:00 A.M. to 11:00 A.M. and from 12:00 noon to 4:00 P.M. You are not allowed to work overtime. Your hourly rate is $7.50. Use **Figure 1.3** to find the hours worked and the total pay for the week.

Figure 1.3

	DATE	IN	OUT	IN	OUT	HOURS
Employee Time Card						
Sun.						
Mon.	—	7:00 A.M.	11:00 A.M.	12:00 P.M.	4:04 P.M.	a.
Tue.	—	7:05 A.M.	11:10 A.M.	11:55 P.M.	3:59 P.M.	b.
Wed.	—	7:01 A.M.	10:59 A.M.	12:05 P.M.	3:58 P.M.	c.
Thur.	—	6:59 A.M.	10:55 A.M.	12:01 P.M.	4:03 P.M.	d.
Fri.	—	6:55 A.M.	11:01 A.M.	12:02 P.M.	3:49 P.M.	e.
Sat.						
					TOTAL HOURS	f.

MAINTAINING YOUR SKILLS

Add.

12. $\frac{1}{4} + \frac{1}{4} + \frac{1}{2}$

13. $\frac{3}{4} + \frac{1}{8}$

14. $\frac{3}{8} + \frac{1}{4} + \frac{1}{4}$

15. $\frac{5}{8} + \frac{1}{3}$

Round to the nearest quarter hour.

16. 8:09   **17.** 7:47   **18.** 11:55

Round to the place value indicated. Round to the nearest thousand.

19. 39,972

20. 21,944

21. 68,498

Round to the nearest hundred.

22. 842

23. 257

24. 3,580

Some jobs pay you on a **piecework** basis. This is when you receive a specified amount of money for each item of work that you complete. To calculate this, remember that:
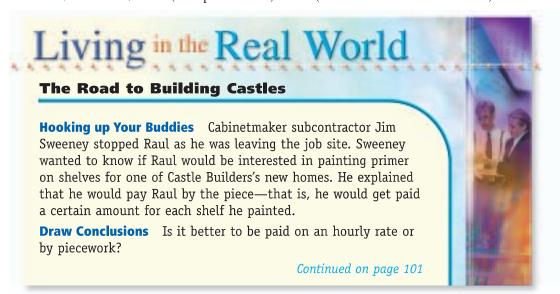
Total Pay = Rate per Item × Number of Items Produced

For example, pretend that the cinema paid you this way. The manager pays you for each theater you clean. On Wednesday night you cleaned 10 theaters at $10.00 a piece. So you would have made

$100.00 = $10.00 (rate per theater) × 10 (number of theaters cleaned)

Living in the Real World

The Road to Building Castles

Hooking up Your Buddies   Cabinetmaker subcontractor Jim Sweeney stopped Raul as he was leaving the job site. Sweeney wanted to know if Raul would be interested in painting primer on shelves for one of Castle Builders's new homes. He explained that he would pay Raul by the piece—that is, he would get paid a certain amount for each shelf he painted.

Draw Conclusions   Is it better to be paid on an hourly rate or by piecework?

Example 1

Ramon Hernandez works for National Cabinet Company. He is paid $8.00 for each cabinet he assembles. Last week he assembled 45 cabinets. This week he assembled 42. What is his pay for each week?

STEP: Find the total pay.

	Rate per Item	×	Number of Items Produced	=	Total Pay
Last week	$8.00	×	45	=	$360.00
This week	8.00	×	42	=	336.00

CONCEPT CHECK

SELF-CHECK

Complete the problems, then check your answers at the end of the chapter. Find the total pay.

1. $3.20 per item × 140 items produced

2. $0.15 per item × 1,494 items produced

CONTENTS

3. Federico Santos operates a salon. He charges $12 per haircut. Often by Saturday he has given 60 haircuts. What is his total pay?

4. Ellen Kolazinski picks strawberries every Wednesday morning. The farm pays her $0.25 per quart and she normally picks 1,053 quarts. Find her total pay.

5. Paul Aymes is a chrome plater at a local plant. If he plates 300 items or more, he is paid $1.25 each. For less than 300 items, he is paid $0.75 each. What is his total pay if he plates 321 items on Wednesday and 154 items on Thursday?

6. Antonio Rubio is a shirt silk screener. The owner will pay him $0.45 per shirt and $0.75 per sweatshirt. On Tuesday Rubio completed 288 shirts and 72 sweatshirts. What is his total pay?

7. Carol Ying is paid $0.45 for each calculator she assembles. What is her pay for a day in which she assembles 134 calculators?

8. Leah Elliot runs a cleaning service. She charges $21.95 per room. On Monday she cleaned 3 rooms in one house, 2 in another, and 4 in a third. Find her total cleaning charges.

9. Jeremy Sullivan delivers newspapers for the *Dispatch*. He receives 14.2¢ per paper, 6 days a week (for the daily paper), and 50¢ for the Sunday paper. He delivers 124 daily papers each day and 151 Sunday papers each week. What is his total pay for the week?

10. Charelle Cleaves operates an oil change and tune-up service. She charges $33.95 per oil change, $72.50 to tune a four-cylinder engine, $82.50 to tune a six-cylinder engine, and $92.50 to tune an eight-cylinder engine. What are the charges for a week in which she did 35 oil changes, tuned 5 four-cylinder engines, 7 six-cylinder engines, and 2 eight-cylinder engines?

MAINTAINING YOUR SKILLS

Multiply the numbers. Round the answers to the nearest cent.

11. $0.23 × 89

12. $1.10 × 240

13. $0.06 × 4,192

14. $0.06 × 906

15. $5.20 × 23

16. $0.04 × 3,200

17. $0.66 × 350

18. $0.047 × 731

Multiply the numbers.

19.
$$\begin{array}{r} 1.17 \\ \times 100 \\ \hline \end{array}$$

20.
$$\begin{array}{r} 15.876 \\ \times 100 \\ \hline \end{array}$$

21.
$$\begin{array}{r} 242 \\ \times \quad 0.04 \\ \hline \end{array}$$

22.
$$\begin{array}{r} 456 \\ \times 1000 \\ \hline \end{array}$$

23.
$$\begin{array}{r} 693.25 \\ \times 482 \\ \hline \end{array}$$
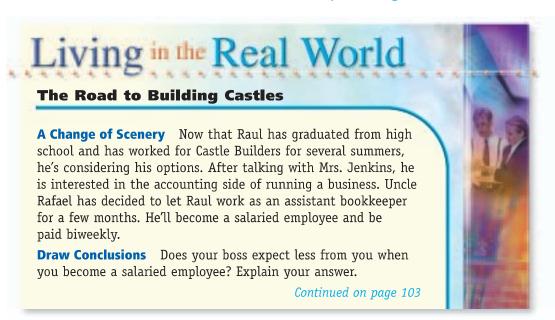
You have worked at the cinema for six years and make your way up to assistant manager and finally manager. Because you're at this status, the company pays you a **salary** . This is a fixed amount of money that you earn on a regular basis. Your salary may be paid weekly, biweekly, semimonthly, or monthly. Your annual salary is the total salary you earn during a year. There are 52 weekly, 26 biweekly, 24 semimonthly, and 12 monthly pay periods per year.

$$\text{Salary per Pay Period} = \frac{\text{Annual Salary}}{\text{Number of Pay Periods per Year}}$$

Living in the Real World

The Road to Building Castles

A Change of Scenery   Now that Raul has graduated from high school and has worked for Castle Builders for several summers, he's considering his options. After talking with Mrs. Jenkins, he is interested in the accounting side of running a business. Uncle Rafael has decided to let Raul work as an assistant bookkeeper for a few months. He'll become a salaried employee and be paid biweekly.

Draw Conclusions   Does your boss expect less from you when you become a salaried employee? Explain your answer.

Example 1

Need Help? Go to...

► **Workshop 7:** Dividing Decimals, page 16
► **Skill 11:** Dividing Decimals, page 738
► **Application K:** Chronological Expressions, page 766

Beth Huggins is a computer programmer. Her annual salary is $42,648. What is her monthly salary? What is her weekly salary?

STEP: Find the salary per pay period.

	Annual Salary	÷	Number of Pay Periods per Year	=	Salary per Pay Period
Monthly	$42,648.00	÷	12	=	$3,554.00 monthly salary
Weekly	42,648.00	÷	52	=	820.15 weekly salary

42648 ÷ 52 = 820.1538

CONTENTS

SELF-CHECK ✔

Complete the problems, then check your answers at the end of the chapter.

1. Find the biweekly salary. $42,900 ÷ 26 =

2. Find the semimonthly salary. $18,200 ÷ 24 =

───────────────── **Example 2** ─────────────────

Need Help? Go to...

➡ **Skill 11:** Dividing Decimals, page 738

➡ **Application K:** Chronological Expressions, page 766

The city of Carson advertised for a redevelopment project manager at a monthly salary of $5,480. What is the annual salary? What is the weekly salary?

STEP: **Find the salary per pay period.**

Annual Salary = Monthly Salary × 12
$5,480   × 12 = **$65,760 annual salary**

Weekly Salary = Annual Salary ÷ 52
$65,760   ÷ 52 = **$1,264.615 or $1,264.62 weekly salary**

CONCEPT CHECK

SELF-CHECK ✔

Complete the problems, then check your answers at the end of the chapter.

3. Find the annual salary when the monthly salary is $4,725.

4. Find the semimonthly salary when the weekly salary is $1,200.

SECTION 1-5 PRACTICE

5. Your annual salary is $22,500. What is your weekly salary?

6. Your annual salary is $28,320. What is your semimonthly salary?

7. A weekly salary is $810. What is the annual and semimonthly salary?

8. Turell Grant is a claims adjustor. His biweekly salary is $1,075. What is his annual and monthly salary?

9. An electrical engineer earns $58,400 per year. What is her monthly salary? What is her weekly salary?

10. Louis Rahn is currently earning an annual salary of $25,090 at Budgett Electronics. He has been offered a job at Delta Tech at an annual salary of $26,660. How much more would Rahn earn per week at Delta Tech than at Budgett Electronics?

11. Paul Sellers was paid a biweekly salary of $1,230. Now he's paid on a semimonthly basis. What will Sellers' semimonthly salary be?

12. Assume that your present job pays a monthly gross salary of $1,560. You are offered a new position that pays $8.60 per hour with $1\frac{1}{2}$ times more per hour for all hours over 40 per week. How many hours of overtime per week would you need to work to earn the same amount per week as your present job?

Need Help? Go to...

➡ **Skill 11:** Dividing Decimals, page 738

➡ **Application K:** Chronological Expressions, page 766

MAINTAINING YOUR SKILLS

Divide the numbers and then round the answers to the nearest hundredth.

13. $14,290 ÷ 50   **14.** 41.62 ÷ 8.6   **15.** 191.3 ÷ 14.7

Find the number of pay periods.
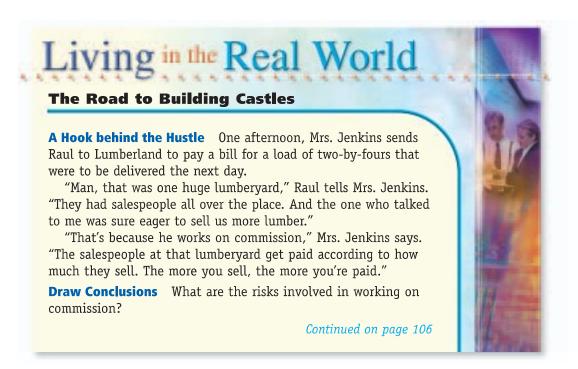
16. Weekly for 2 years   **17.** Semimonthly for 3 years

Calculate the straight commission and determine the gross pay.

Although you've worked your way up the corporate ladder and became the cinema manager, you've always wanted to be a salesperson. You're outgoing and friendly. Someone suggests you start working in retail, like selling furniture or cars. Often times retail positions pay you based on **commission** . This is an amount of money that you are paid for selling a product or service.

Commission works in two ways. First, you might work on a **commission rate** . This might be a specified amount of money for each sale or it might be a percent of the *total value* of your sales. If the commission is the only pay you receive, you work on **straight commission** . The important formula to remember for commission is:

Commission = Total Sales × Commission Rate

Living in the Real World

The Road to Building Castles

A Hook behind the Hustle   One afternoon, Mrs. Jenkins sends Raul to Lumberland to pay a bill for a load of two-by-fours that were to be delivered the next day.

"Man, that was one huge lumberyard," Raul tells Mrs. Jenkins. "They had salespeople all over the place. And the one who talked to me was sure eager to sell us more lumber."

"That's because he works on commission," Mrs. Jenkins says. "The salespeople at that lumberyard get paid according to how much they sell. The more you sell, the more you're paid."

Draw Conclusions   What are the risks involved in working on commission?

Example 1

Milton Arps sells real estate at a $7\frac{1}{2}$ percent straight commission. Last week his sales totaled $290,000. What was his commission?

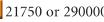**STEP:** Find the commission.

$$\text{Total Sales} \times \text{Commission Rate}$$

$290,000 \quad \times \quad 7\frac{1}{2}\%$

$290,000 \quad \times \quad 0.075 \qquad = \textbf{\$21,750 straight commission}$

290000 $\boxed{\times}$ 0.075 $\boxed{=}$ 21750 or 290000 $\boxed{\times}$ 7.5 $\boxed{\%}$ $\boxed{=}$ 21750

CONTENTS

SELF-CHECK ✔

**Complete the problems, then check your answers at the end of the chapter.
Find the commission.**

1. $9,400 × 8 percent commission rate

2. $143,400 × $5\frac{1}{2}$ percent commission rate

Instead of only working on commission, you might be guaranteed a minimum
weekly or monthly salary. The commission you earn during a week or month is
compared with your minimum salary. Your gross pay is the *greater* of the two
amounts. Remember this formula for gross pay:

Gross Pay = Salary or Commission

Example 2

Need Help? Go to...

▶ **Skill 30:** Finding
the Percentage,
page 757

▶ **Application A:**
Formulas, page 760

**Owen Theil is guaranteed a minimum salary of $250 a week, or 7 percent of his
total sales, depending on whichever is greater. What is his gross pay for a week
in which his total sales were $3,614?**

STEP 1: Find the commission.
Total Sales × Commission Rate
$3,614 × 7% = $252.98 commission

STEP 2: Find the gross pay.
Salary or Commission
$250 or $252.98   **Gross pay is $252.98 (the greater amount).**

CONCEPT CHECK

SELF-CHECK ✔

Complete the problems, then check your answers at the end of the chapter.

3. Minimum salary: $160. Commission: $5\frac{1}{2}$ percent on $2,900.
Which is greater?

4. Minimum salary: $2,000. Commission: 6 percent on $34,000.
Which is greater?

SECTION 1-6 PRACTICE

5. Roger Tussing earns 3 percent on sales of $9,500 in sales for a week. What is
his commission?

	Sales Position	Total Sales	×	Commission Rate	=	Commission
6.	Real estate	$98,000	×	8%	=	
7.	Computers	18,100	×	2%	=	
8.	Major appliances	9,598	×	6%	=	
9.	Clothing	1,311	×	9%	=	
10.	Computer supplies	929	×	15%	=	
11.	Siding contract	5,754	×	12%	=	
12.	Auto	68,417	×	3%	=	

	Salesperson	Minimum Monthly Salary	Total Monthly Sales	×	Commission Rate	=	Monthly Commission	Gross Pay
13.	Anne Moser	$2,100	$28,000	×	8.0%	=	a.	b.
14.	Peter Zinn	1,600	23,000	×	6.5%	=	a.	b.
15.	Vern Yoder	3,140	31,000	×	9.25%	=	a.	b.
16.	Yevette Vershum	850	10,400	×	3.5%	=	a.	b.
17.	Rashad Ulrich	1,200	45,000	×	5.5%	=	a.	b.
18.	DeWanda Coy	3,410	29,100	×	12.1%	=	a.	b.

19. Sam Taylor earns $6\frac{1}{2}$ percent commission on sales of $4,226. What is his commission?

20. John Navarro is a salesperson in the appliance department at Morris Appliance, Inc. He is guaranteed a minimum salary of $185 per week, or 5.5 percent of his total sales—whichever is greater. What is his gross pay for a week in which his total sales were $3,422?

21. Maude Eggert sells cosmetics for Soft Touch, Inc. She is guaranteed a salary of $790 a month, or 7 percent of her total sales—whichever is greater. What is her gross pay for a month in which her total sales were $10,984?

22. Some jobs pay a commission plus a bonus at the end of the year. The bonus may be a percent of the salesperson's total commission for the year.
  a. Madelyn Carr is a sales representative. She receives 7 percent commission on all sales. At the end of the year, she receives a bonus of 5 percent of her commission. What is her total pay for a year in which she had sales totaling $412,454?
  b. What would Carr's total pay be if her sales were $316,250?

MAINTAINING YOUR SKILLS

Write each as a decimal.

23. $5\frac{1}{2}$

24. $6\frac{3}{4}$

25. $9\frac{1}{4}$

Find the percentage for each, then round to the nearest cent or hundredth.

26. 4% of $1,250

27. $8\frac{1}{2}$% of $4,300

28. $7\frac{1}{4}$% of $8,200

29. 9.2% of $3,600

30. 7.3% of $120

31. 8.92% of 1,380

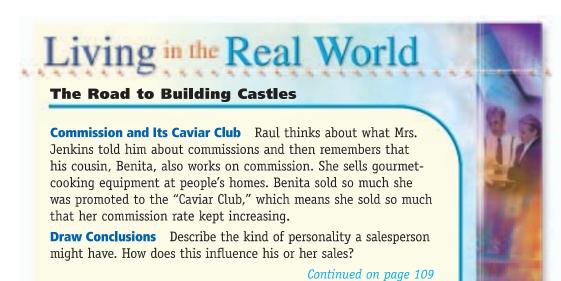Round the answers to the nearest tenth.

32. 0.081

33. 0.60

34. 0.92

CONTENTS

SECTION 1-7 Graduated Commission

Your commission rate may increase as your sales increase. A **graduated commission** offers a different rate of commission for each of several levels of sales. It provides an extra incentive to sell more. The general formula to remember is:

Total Graduated Commission = Sum of Commissions for All Levels of Sales

Living in the Real World

The Road to Building Castles

Commission and Its Caviar Club   Raul thinks about what Mrs. Jenkins told him about commissions and then remembers that his cousin, Benita, also works on commission. She sells gourmet-cooking equipment at people's homes. Benita sold so much she was promoted to the "Caviar Club," which means she sold so much that her commission rate kept increasing.

Draw Conclusions   Describe the kind of personality a salesperson might have. How does this influence his or her sales?

Example 1
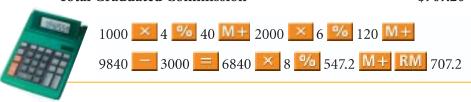
Irene Gomaz sells appliances at Twin City Sales. She receives a graduated commission as shown:

Gomaz's sales for the past month totaled $9,840. What is her commission for the month?

Commission Percent	Level of Sales
4%	First $1,000
6%	Next $2,000
8%	Over $3,000

STEP: **Find the sum of commissions for all levels of sales.**

	Sales	×	Commission Rate	
First $1,000:	$1,000	×	4%	= $ 40.00
Next $2,000:	$2,000	×	6%	= 120.00
Over $3,000:	($9,840 − $3,000) ×		8%	
	$6,840	×	8%	= 547.20
Total Graduated Commission				**$707.20**

1000 ✕ 4 % 40 M+ 2000 ✕ 6 % 120 M+

9840 − 3000 = 6840 ✕ 8 % 547.2 M+ RM 707.2

CONTENTS

SELF-CHECK ✔

Complete the problems, then check your answers at the end of the chapter.

1. Commission: 10 percent on first $5,000; 15 percent over $5,000.
   Find the total graduated commission on $22,000.

2. Commission: 5 percent first $2,000; 8 percent over $2,000.
   Find the total graduated commission on $7,740.

SECTION 1-7 PRACTICE

3. Manuel Romo sells tires at the local shopping mall. Romo earns 20 percent commission on the first $500, 25 percent on the next $1,000, and 30 percent on sales over $1,500. Last weekend he sold $1,940 worth of tires. What is his total commission?

4. Tunisia Buehrer sells sporting goods equipment. Buehrer earns 5 percent commission on the first $6,000, $7\frac{1}{2}$ percent on the next $6,000, and 10 percent on sales over $12,000. Her total sales for the month are $14,640. What is her total commission?

5. Jean Gray sells office supplies. She receives a graduated commission of 4 percent on her first $2,000 of sales and $8\frac{1}{2}$ percent on all sales over $2,000. Gray's sales for the past week totaled $3,925. What is her commission for the week?

6. Charles Beaudry sells computer hardware for a computer firm. He is paid 4 percent commission on the first $8,000 of sales, 6 percent on the next $10,000, and 8 percent on sales over $18,000. What is his commission on $24,550 in sales?

7. Booker Bond demonstrates cookware at the National Food Fair. He is paid $6.00 each for the first 10 demonstrations in one day and $7.50 for each demonstration over 10. What is Bond's commission for a day in which he makes 21 demonstrations?

8. Odessa Dilulo demonstrates home fire alarm systems. She is paid $10.00 per demonstration for the first 10 demonstrations given during a week and $15.50 for each demonstration over 10. Also, for every sale, she gets a bonus of $15.00. What is her commission for a week in which she gives 18 demonstrations and makes 6 sales?

9. Some sales positions pay a commission only if sales exceed a sales quota. The salesperson is rewarded only for having sales beyond an expected amount. Joyce Doyle is a sales trainee. She is paid $1,550 per month plus a commission of 7.5 percent on all sales over a quota of $20,000 per month. What is her total pay for a month in which she has sales totaling $22,650?

MAINTAINING YOUR SKILLS

Need Help? Go to...

➤ **Skill 5:** Adding
   Decimals, page 732
➤ **Skill 28:** Writing
   Percents as
   Decimals, page 755
➤ **Skill 30:** Finding
   the Percentage,
   page 757

Add.

10. $123.72
     112.69
   +   45.23

11. $567.89
       34.69
   + 431.73

12. $1,350.23
       946.00
   +   18.11

Write each as a decimal.

13. $5\frac{1}{2}\%$

14. $10\frac{1}{4}\%$

15. 15%

Find the percentage of each.

16. $5\frac{1}{4}\%$ of $2,000

17. 7% of $4,560

18. $15\frac{1}{2}\%$ of $3,500

Section 1-7 Graduated Commission ▶ **107**

◀ CONTENTS ▶

Self-Check Answers

SECTION 1-1 **CONCEPT CHECK** (p. 92)

1. **$304.00**
2. **$292.30**

SECTION 1-2 **CONCEPT CHECK** (p. 95)

1. ($9.00 × 40) + ($9.00 × 1.5 × 6) = ($360.00 + $81.00) = **$441.00**
2. ($11.50 × 40) + ($11.50 × 1.5 × 7) = ($460.00 + $120.75) = **$580.75**

SECTION 1-3 **CONCEPT CHECK** (p. 97)

1. $2\frac{3}{4} + 3\frac{3}{4} = \mathbf{6\frac{1}{2}}$
2. $4\frac{1}{2} + 3\frac{3}{4} = \mathbf{8\frac{1}{4}}$

SECTION 1-4 **CONCEPT CHECK** (p. 99)

1. $3.20 × 140 = **$448.00**
2. $0.15 × 1,494 = **$224.10**

SECTION 1-5 **CONCEPT CHECK** (p. 102)

1. **$1,650**
2. **$758.33**
3. $4,725 × 12 = **$56,700**
4. $62,400 ÷ 24 = **$2,600**

SECTION 1-6 **CONCEPT CHECK** (p. 104)

1. $9,400 × 8% = **$752.00**
2. $143,400 × $5\frac{1}{2}$% = **$7,887.00**
3. $5\frac{1}{2}$% × $2,900 = **$159.50, $160.00 is greater**
4. 6% × $34,000 = **$2,040, $2,040 is greater**

SECTION 1-7 **CONCEPT CHECK** (p. 107)

1. First $5,000: $5,000   × 10% = $ 500.00
    Over $5,000:   ($22,000 − $5,000) × 15%
                         $17,000   × 15% =   2,550.00
    Total Graduated Commission $3,050.00

2. First $2,000: $2,000   × 5% = $ 100.00
    Over $2,000:   ($7,740 − $2,000) ×   8%
                         $5,740   ×   8% =   459.20
    Total Graduated Commission $ 559.20

Living in the Real World

The Road to Building Castles

Preparing Paychecks   As a newly salaried employee of Castle Builders, Raul doesn't have to worry about time cards. Mrs. Jenkins encouraged him to enroll in the company's *direct deposit* system. This is when an employee's net pay is deposited automatically in an employee's designated bank account.

Analysis   Why might employers like the direct deposit function for preparing paychecks?

After YOU READ

REVIEW OF KEY WORDS

hourly rate **(p. 92)**
straight-time pay **(p. 92)**
overtime pay **(p. 94)**
time and a half **(p. 94)**

double time **(p. 94)**
weekly time card **(p. 96)**
piecework **(p. 99)**
salary **(p. 101)**

commission **(p. 103)**
commission rate **(p. 103)**
straight commission **(p. 103)**
graduated commission **(p. 106)**

Determine if the following statements are true or false.

1. Your **hourly rate** is the amount of money you earn per hour.

2. The formula for figuring **straight-time pay** is your hourly rate divided by the number of hours worked in a week.

3. If you work more than your regular hours, you may be eligible for **overtime** pay.

4. Overtime is always **time and a half.**

5. **Double time** is figured by multiplying your hourly rate by your overtime pay.

6. Employees keep **weekly time cards** in order to show how many hours were worked each pay period.

7. Employees who are paid on a **piecework** basis receive cash every day that they work.

8. The fixed amount of money you earn on a regular basis is your **salary.**

9. When you receive **commission,** you are earning money based on the number of hours you work per day.

10. In order to determine your **straight commission,** you need to multiply your total sales by the commission rate.

11. Your **commission rate** is your hourly rate multiplied by the number of hours you work each week.

12. If you earn **graduated commission,** it means that you have received a recent promotion.

CONTENTS

Skills and Concepts

SECTION OBJECTIVE 1-1 AND EXAMPLES

Compute the straight-time pay.

Rita Carlson works at a coffee shop. She earns $6.75 per hour. Last week she worked 28 hours. What is her straight-time pay?

STEP: Find the straight-time pay.   Hourly Rate × Hours Worked
                                                $6.75   ×   28 hours   = **$189 straight-time pay**

REVIEW EXERCISES

For the month of June, Marla May worked the following. Her hourly rate is $9.45 per hour. What is her straight-time pay for each week?

13. Week 1   40 hours   **15.** Week 3   17.50 hours

14. Week 2   36.25 hours   **16.** Week 4   39.75 hours

Find the straight-time pay.

17. $6.55 per hour, 40 hours worked.   **19.** $12.85 per hour, 19.5 hours worked.

18. $8.96 per hour, 36 hours worked.   **20.** $8.755 per hour, 38.925 hours worked.

SECTION OBJECTIVE 1-2 AND EXAMPLES

Figure out straight-time, overtime, and total pay.

Dori Newman earns $9.50 per hour for 40 hours and time and a half for overtime. If she worked 5 hours overtime, what is her total pay?

STEP 1: Find the straight-time pay.
           Hourly Rate × Regular Hours Worked
                $9.50   ×   40   = $380.00 straight-time pay

STEP 2: Find the overtime pay.
           Overtime Rate × Overtime Hours Worked
                (1.5 × $9.50)   ×   5   = $71.25 overtime pay

STEP 3: Find the total pay.
           Straight-Time Pay + Overtime Pay
                $380.00   + $71.25   = **$451.25 total pay**

REVIEW EXERCISES

21. Tony Sperazza is a school bus driver. He earns $9.17 per hour and time and a half for overtime. Last week he worked his regular 40 hours plus 7 hours of overtime. What was his total pay for the week?

22. As a zookeeper, Chi Ho earns $12.35 an hour plus time and a half for weekend work. Last week Ho worked his regular 40 hours plus 16 hours of overtime on the weekend. What was his total pay for the week?

Find the total pay.

23. $8.20 per hour for 40 hours. Time and a half for 7 hours.

24. $9.65 per hour for 40 hours. Time and a half for 5 hours.

25. $9.25 per hour for 40 hours. Time and a half for 8 hours.

26. $6.50 per hour for 37.5 hours. Time and a half for 3 hours.

SECTION OBJECTIVE 1-3 AND EXAMPLES

Compute the total hours on a weekly time card.

Terry Bartlett worked from 7:00 A.M. to 10:45 A.M. and from 12:30 P.M. to 3:15 P.M. Find the total hours.

STEP: Calculate the total hours.

Total Hours = Sum of Daily Hours

10:45	−	7:00	= 3h:45min
3:15	−	12:30	= 2h:45min
3h:45min	+	2h:45min	= 5h:90min = $6\frac{1}{2}$ hours

REVIEW EXERCISES

John Kim works in a hospital. Use his time card to find his total hours worked each day and his total hours for the week. Round off the total hours each day to the nearest quarter hour.

Employee Time Card   **Central Arkansas Hospital**

Employee Name: _John Kim_   Department: _Radiology_

	DATE	IN	OUT	IN	OUT	TOTAL
Sun.						
27. Mon.	9/1	6:45 A.M.	11:30 A.M.	12:00 P.M.	3:45 P.M.	
28. Tue.	9/2	7:00 A.M.	11:30 A.M.	12:00 P.M.	3:45 P.M.	
29. Wed.	9/3	6:56 A.M.	11:45 A.M.	12:30 P.M.	4:00 P.M.	
30. Thur.	9/4	6:45 A.M.	12:50 P.M.	1:50 P.M.	3:00 P.M.	
31. Fri.	9/5	7:10 A.M.	11:30 A.M.	12:30 P.M.	4:25 P.M.	
Sat.						

32. Employee Signature: _John Kim_   **TOTAL HOURS**

SECTION OBJECTIVE 1-4 AND EXAMPLES

Compute the total pay on a piecework basis.

Vidia Roswell earns $2.57 per CD that she boxes for shipment. Yesterday, she boxed 85 CDs. What was her total pay?

STEP: Find the total pay.   Rate per Item × Number of Items Produced

$2.57   ×   85   = **$218.45 total pay**

REVIEW EXERCISES

33. Roger Levingold works in a motorcycle shop. He is paid to set up new motorcycles when they arrive from the factory. He is also responsible for test riding each one. His boss pays him $125 per motorcycle and another $18 per test ride. Last week he set up 11 motorcycles and test rode 9 of them. How much money did he earn?

34. Vicki Giddeon delivers flowers every Valentine's Day. She earns $3.50 to deliver a small arrangement, $4.50 to deliver a medium arrangement, and $6.05 to deliver a large arrangement. Last year, she delivered 68 small arrangements, 15 medium arrangements, and 23 large arrangements. What was her total pay for the day?

Compute the total pay on a piecework basis.

35. $3.05 per item, 136 items produced.

36. $2.38 per item, 85 items produced.

CONTENTS

Compute the salary per pay period.

Richard Martin is a network administrator for a large law firm. His annual salary is $43,450. What is his monthly salary? What is his weekly salary?

STEP: Find the salary per pay period.

Annual Salary ÷ Number of Pay Periods per Year

$43,450	÷	12	= **$3,620.83 monthly salary**
$43,450	÷	52	= **$835.58 weekly salary**

REVIEW EXERCISES

Find the number of pay periods.

37. Weekly for 3 years.

38. Biweekly for $1\frac{1}{2}$ years.

39. Semimonthly for 4 years.

40. Monthly for $2\frac{1}{2}$ years.

Determine the salary per pay period.

41. If your annual salary is $36,575, what is your weekly salary?

42. If your annual salary is $47,980, what is your biweekly salary?

43. If your annual salary is $64,710, what is your semimonthly salary?

44. If your annual salary is $24,700, what is your monthly salary?

Calculate the straight commission and determine the gross pay.

Bonnie Heisey sells clothing. Her commission rate is 7.5 percent. Last month her sales were $10,875. What was her commission?

STEP: Find the commission.   Total Sales × Commission Rate

$10,875   ×   7.5%   = **$815.63 commission**

REVIEW EXERCISES

Compute the straight commission.

45. $7,600 total sales, 4 percent commission rate.

46. $122,360 total sales, $6\frac{1}{4}$ percent commission rate.

47. $34,996 total sales, 3.5 percent commission rate.

48. $1,600 total sales, 15.8 percent commission rate.

Compute the straight commission and gross pay.

49. Minimum weekly salary is $185. Rate of commission is 6.5 percent. Weekly sales are $3,790. What is the commission? What is the gross pay?

50. Minimum weekly salary is $250. Rate of commission is 5.65 percent. Weekly sales are $1,515. What is the commission? What is the gross pay?

51. Minimum weekly salary is $1,500. Rate of commission is $4\frac{1}{4}$ percent. Weekly sales are $4,500. What is the commission? What is the gross pay?

52. Minimum weekly salary is $325. Rate of commission is $6\frac{3}{4}$ percent. Weekly sales are $22,300. What is the commission? What is the gross pay?

SECTION OBJECTIVE 1-7 AND EXAMPLES

Compute the total graduated commission.

Carl earns a commission rate of 6 percent for the first $6,500 in sales and 9 percent on sales over $6,500. Find the total graduated commission on sales of $10,500.

STEP: Find the graduated commission. Multiply and add.

Total Graduated Commission = Sum of Commissions for All Levels of Sales

$6,500 $\times$ .06 = $390
$4,000 $\times$ .09 = $360
$390 + $360 = **$750 total graduated commission**

REVIEW EXERCISES

53. Vito Avido is a sales representative for a company that sells roofing material. He receives a graduated commission of 5 percent on the first $5,000 of sales, 6.5 percent on the next $15,000, and 7 percent on sales over $20,000. What is his commission on $23,458 in sales?

54. Connie Hamm demonstrates microwave ovens at a home décor center. She is paid $35.00 per demonstration for the first 10 demonstrations and $45.00 for each demonstration over 10. Also, for every microwave sold, she earns $20.55. What is Hamm's commission on a day in which she makes 12 demonstrations and 4 sales?

Compute the graduated commission.

55. Commission: 25 percent on the first $1,900; 27 percent on the next $1,000; 30 percent on sales over $2,900. Total sales equal $3,500. What is the total commission?

56. Commission: 5 percent on the first $4,000; $6\frac{1}{2}$ percent on the next $6,000; 11 percent on sales over $10,000. Total sales equal $12,360. What is the total commission?

57. Social Science In Indonesia, women often work 15 hours per day making blue jeans for companies in the United States to sell. If a young woman was paid $0.23 per pair of jeans she produces, what is her total piecework pay for the week if she produces 43 pairs? **(See Section 1-4.)**

58. Computer Technology OMY, Inc. is a computer chip factory located in Washington. The front line supervisor is paid $658 per week. She has been offered a position in a chip factory in Colorado. Her pay would be $1,190 biweekly. What is the annual salary for each job? Should she take the job in Colorado? **(See Section 1-5.)**