

Cash Purchases

Before YOU READ

What You'll Learn

- Section 6-1** Compute the sales tax.
- Section 6-2** Calculate the total purchase price.
- Section 6-3** Figure out the unit price.
- Section 6-4** Find the better buy based on unit price.
- Section 6-5** Work out the final price after using a coupon or rebate.
- Section 6-6** Solve for the dollar amount of the markdown.
- Section 6-7** Compute the sale price when the markdown rate is known.

When Will You Ever Use This?

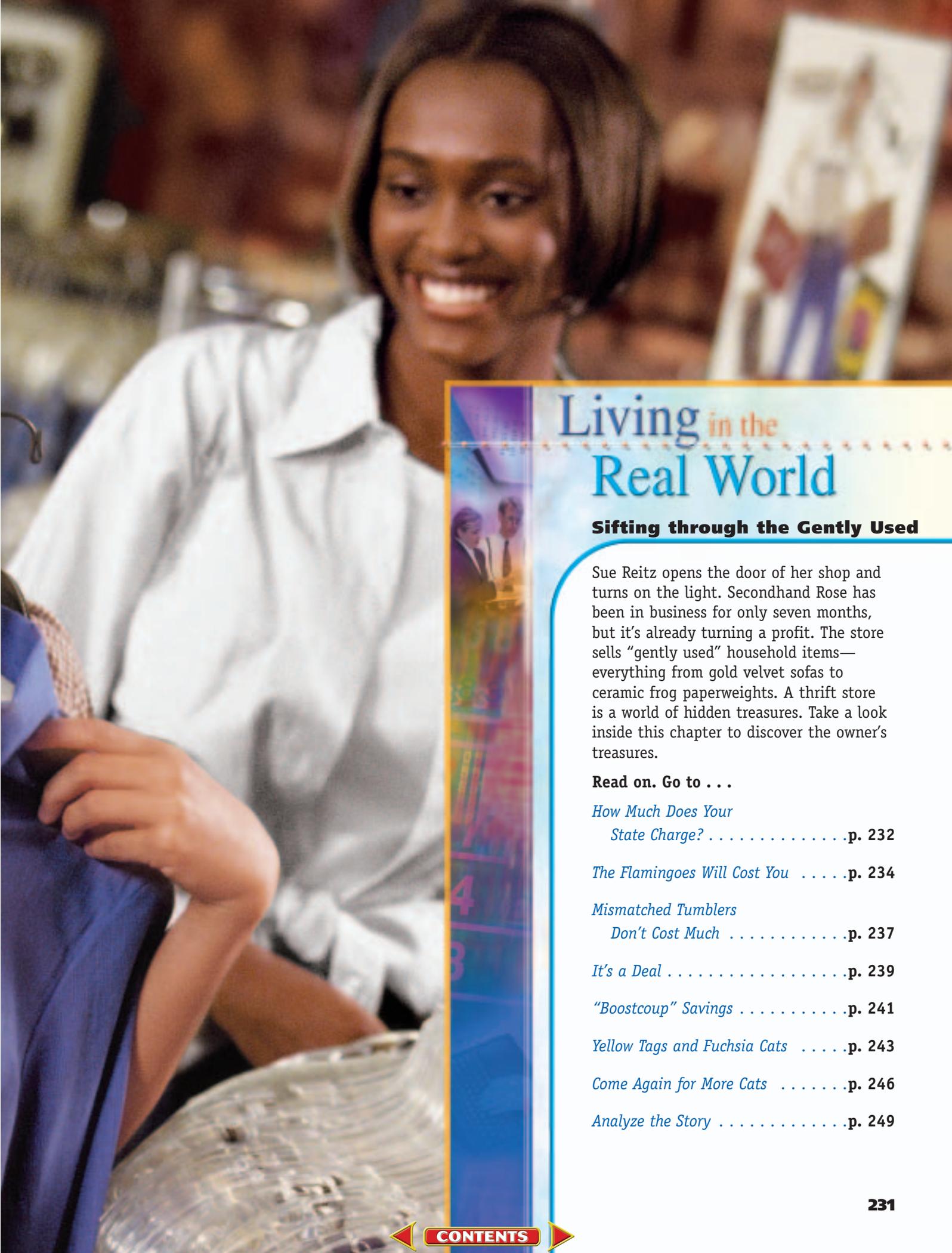
While shopping you might have noticed a store's coupons, rebates, sale prices, or markdowns. You'll determine the exact price of an item (including calculating the sales tax on it) given whichever method a store uses to move its goods or services.

Key Words to Know

- sales tax
- sales receipt
- total purchase price
- unit pricing
- coupons
- rebates
- markdown
- markdown rate
- sale price

Mathematics Online

To learn more about cash purchases, visit busmath.glencoe.com.



Living in the Real World

Sifting through the Gently Used

Sue Reitz opens the door of her shop and turns on the light. Secondhand Rose has been in business for only seven months, but it's already turning a profit. The store sells "gently used" household items—everything from gold velvet sofas to ceramic frog paperweights. A thrift store is a world of hidden treasures. Take a look inside this chapter to discover the owner's treasures.

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SECTION 6-1 Sales Tax

Section Objective

Compute the sales tax.

You just purchased a computer game at the electronics store. How much money did you just contribute to the state or local government for buying it? You'll find that most states charge a state **sales tax** on goods sold. This is a tax on the selling price of an item or service that you purchase. The sales tax rate is usually expressed as a percent and varies from state to state. Many states permit county and city governments to add an additional tax to the state sales tax as well.

To figure out how much the sales tax is, use this formula:

$$\text{Sales Tax} = \text{Total Selling Price} \times \text{Sales Tax Rate}$$

Living in the Real World

Sifting through the Gently Used

How Much Does Your State Charge? The first customer of the day walks into Secondhand Rose. The woman is looking for plastic pink flamingoes for her front yard.

It just so happens that the store does have two flamingoes that cost \$3.50 a piece. Reitz rings up the total price of \$7.00 and then calculates the sales tax.

Draw Conclusions How much is the sales tax in your state?

Continued on page 234

Need Help? Go to...

- **Workshop 14:** Finding a Percentage, page 30
- **Workshop 2:** Rounding Numbers, page 6
- **Skill 30:** Finding the Percentage, page 757
- **Skill 2:** Rounding Numbers, page 729

Example 1

Aleta Carbajal bought a cell phone for \$199.95 and a phone case for \$19.95. What is the total sales tax if Carbajal lives in Austin, Texas, where the state tax is 6.25 percent and the city tax is 2.00 percent?

STEP 1: Find the total selling price.

$$\$199.95 + \$19.95 = \$219.90$$

STEP 2: Find the sales tax.

Total Selling Price \times **Sales Tax Rate**

$$\$219.90 \quad \times \quad (6.25\% + 2.00\%)$$

$$\$219.90 \quad \times \quad 0.0825 \quad = \quad \$18.14 \text{ or } \$18.14 \text{ sales tax}$$

CONCEPT CHECK

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

1. Total selling price: \$420.
Maine sales tax rate: 5 percent.
Find the sales tax.
2. Total selling price: \$2,520.
Florida sales tax rate: 6 percent.
Gainesville sales tax rate: 1 percent.
Find the state tax and city tax.

SELF-CHECK

Find the sales tax.

	Item	Total Selling Price	×	State Tax Rate	City Tax Rate	=	Sales Tax
3.	Clothing	\$ 81.39	×	3.00%	0.00%	=	
4.	Pillowcases	22.99	×	4.00%	0.00%	=	
5.	Calculator	21.75	×	5.00%	0.00%	=	
6.	Compact disc	16.95	×	4.00%	2.00%	=	
7.	Computer	1,995.00	×	4.90%	3.00%	=	
8.	Breakfast	9.95	×	4.75%	3.25%	=	

9. Purchases include a \$39.95 blanket, a \$24.95 mini blind, an adjustable screen for \$15.95, and a 12-foot extension cord for \$9.49. The purchases were made in Massachusetts, where the tax rate is 5 percent. What is the total selling price? What is the sales tax?
10. Carlotta Martinez purchased a \$399.99 electronic organizer for work. What is the total sales tax if Martinez lives in North Dakota, where the state tax is 5 percent and the county tax is 1.25 percent?
11. Alfredo Rodriguez purchases a DVD for \$29.95, a dictionary for \$31.50, a paperback book for \$9.25, and a magazine for \$5.00. What is the total sales tax if he lives in Acme, Washington, where the state tax is 6.5 percent and the city tax is 1.1 percent?
12. Jenny Zaragoza purchases a \$1,599.99 treadmill, a \$49.99 pair of walking shoes, and a \$79.99 leather handbag at the Suffolk County Store in Bay Shore, New York. The state sales tax rate is 4 percent, the county rate is 4.25 percent, and the city rate is 0.25 percent. What is the sales tax on her purchases?

MAINTAINING YOUR SKILLS

Find the percentage.

13. 8% of \$29.90 14. 4% of \$13,840 15. 120% of \$90

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

16. 85,713 17. 4,139 18. 31,234

Round to the nearest ten.

19. 435 20. 35,229 21. 94

Round to the nearest hundredth (also known as cent).

22. \$34.125 23. \$279.5429 24. \$357.346

Round to the nearest tenth.

25. 37.614 26. 357.982 27. 131.025

Need Help? Go to...

➤ Skill 30: Finding the Percentage, page 757

➤ Skill 2: Rounding Numbers, page 729

SECTION 6-2 Total Purchase Price

Section Objective

Calculate the total purchase price.

Most stores give you a **sales receipt** as proof of purchase. The sales receipt may be a handwritten sales slip or a cash register tape. The sales receipt shows the selling price of each item or service you purchased, the total selling price, any sales tax, and the total purchase price. Note that the tax is computed on the combined state, county, and city tax rates.

The **total purchase price** of an item is equal to the selling price plus the sales tax. Remember that:

$$\text{Sales Tax} = \text{Total Selling Price} \times \text{Sales Tax Rate}$$

$$\text{Total Purchase Price} = \text{Total Selling Price} + \text{Sales Tax}$$

Living in the Real World

Sifting through the Gently Used

The Flamingoes Will Cost You “So, those two gorgeous flamingoes cost \$7.00 and \$0.56 ‘for the governor,’” Reitz says to her first customer of the day. “That’s a total price, tax included, of \$7.56.”

Draw Conclusions What does your state do with sales tax money that it collects?

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Need Help? Go to...

- ▶ **Workshop 6:** Multiplying Decimals, page 14
- ▶ **Workshop 4:** Adding Decimals, page 10
- ▶ **Skill 8:** Multiplying Decimals, page 735
- ▶ **Skill 5:** Adding Decimals, page 732
- ▶ **Application A:** Formulas, page 760

Example 1

A store in Madison, Wisconsin, advertised a smoke alarm for \$24.95 and a fire extinguisher for \$39.95. What is the sales tax if the combined state and city rate is 6 percent? What is the total purchase price?

STEP 1: Find the total selling price.

$$\$24.95 + \$39.95 = \$64.90$$

STEP 2: Find the sales tax.

$$\text{Total Selling Price} \times \text{Sales Tax Rate}$$

$$\$64.90 \times 0.06 = \$3.894 \text{ or } \$3.89$$

STEP 3: Find the total purchase price.

$$\text{Total Selling Price} + \text{Sales Tax}$$

$$\$64.90 + \$3.89 = \$68.79 \text{ total purchase price}$$

CONCEPT CHECK

SELF-CHECK

Complete the problem, then check your answer at the end of the chapter.

1. Kate Farison bought a dome tent priced at \$179.50 and a propane stove priced at \$39.50 in Dallas, Texas. The combined city and state sales tax rate is 8.25 percent. Find the total purchase price.

Example 2

Mike Gustweller, a logger, purchases the items listed on the sales receipt from Verl's Saw Shop. He checks the information on the receipt. The sales tax rate is 5 percent. What is the total selling price?

Figure 6.1

Verl's Saw Shop			
Quantity	Description	Price	Amount
1	Chain saw	\$459.95	\$459.95
12	Chain saw bar oil	4.95	59.40
2	Safety chaps	59.95	119.90
2	Safety helmet	39.95	79.90
TOTAL SELLING PRICE		Subtotal	\$719.15
		Sales Tax 5%	35.96
TOTAL PURCHASE PRICE		Total	\$755.11

- Note the following:
- “Quantity” is the number purchased.
 - “Price” is the price per item.
 - “Amount” is the quantity multiplied by price of item.
 - “Total selling price” is the subtotal.
 - “Total purchase price” is the total.

STEP 1: Find the total selling price.

$$\$495.95 + \$59.40 + \$119.90 + \$79.90 = \$719.15$$

STEP 2: Find the sales tax.

$$\text{Total Selling Price} \times \text{Sales Tax Rate}$$

$$\$719.15 \times 0.05 = \$35.96$$

STEP 3: Find the total purchase price.

$$\text{Total Selling Price} + \text{Sales Tax}$$

$$\$719.15 + \$35.96 = \$755.11 \text{ total purchase price}$$



459.95 M+ 12 × 4.95 = 59.40 M+ 2 × 59.95 =
 119.90 M+ 2 × 39.95 = 79.90 M+ RM 719.15
 × 5 % = 35.9575 + RM 719.15 = 755.1075

CONCEPT CHECK

SELF-CHECK

Complete the problem, then check your answer at the end of the chapter.

- William Eyawat bought 2 two-way radios for \$59.99 each and 2 surge protectors at \$19.99 each. What is the total purchase price if he lives in West Virginia, where the sales tax rate is 6 percent?

SECTION 6-2 PRACTICE

	Item	Total Selling Price	×	Sales Tax Rate	=	Sales Tax	Total Purchase Price
3.	Glue stick	\$ 1.69	×	5.00%	=	\$0.08	a.
4.	Notepad	1.15	×	6.00%	=	0.07	a.
5.	Sweatpants	21.75	×	4.00%	=	a.	b.
6.	Minivan	22,450.00	×	8.75%	=	a.	b.

Continued on next page





Sales taxes on necessities are called “regressive taxes” because they are more of a financial burden for the poor. To help ease this burden, many states do not tax food, clothing, or medicine.



7. Anita Ewing buys a shirt for \$29.99 and tie for \$29.95. The sales tax is \$4.20. What is the total purchase price?
8. Carl Gonzales has a sales slip that shows purchases of a briefcase for \$59.99, 2 notepads at \$0.59 each, and sales tax of \$3.06. What is the total purchase price?
9. Aurelio Esparza buys a computer disk file for \$14.95, a surge protector for \$19.95, and 2 boxes of labels at \$19.99 each. The sales tax rate is 4 percent. What is the total purchase price?
10. Norma Engel buys a microwave for \$149.99, a microwave cart for \$119.95, and microwave cookware for \$19.95. The sales tax rate is 5.5 percent. What is the total purchase price?
11. Ralph McDounagh purchases a power saw for \$85.85 and an extension cord for \$25.95 at the Home Store in Los Angeles. The sales tax rate is 8.25 percent. What is the total purchase price?
12. Frank Norris purchases a digital camera for \$799.99, a tripod for \$59.97, and a camera accessory kit for \$89.99. The sales tax rate is 6.4 percent. What is the total purchase price?
13. Tanya Burley purchases 6 quarts of motor oil at \$1.19 per quart, 8 spark plugs at \$2.29 per plug, and an oil filter for \$5.99 in Boston, Massachusetts. The sales tax rate is 5 percent. What is the total purchase price?
14. At Corner Grocery store, Liz Doyle purchases a 22-pound turkey at \$1.59 per pound, 6 oranges at 4 for \$1.00, a \$6.99 box of laundry detergent, a gallon of milk for \$2.69, a \$0.99 frozen pie, and 6 cans of condensed soup at 2 cans for \$0.74. The sales tax rate is 4 percent. There is no sales tax charged on food items. What is the total purchase price?
15. Nancy Topok purchases a suit for \$229.75, a blouse for \$29.50, a pair of shoes for \$66.25, and jewelry for \$65.50. She pays a state tax of 5 percent and a local tax of 0.75 percent. What is the total sales tax on her purchases? What is the total purchase price?

MAINTAINING YOUR SKILLS

Need Help? Go to...

► Skill 8: Multiplying Decimals, page 735

► Skill 5: Adding Decimals, page 732

Multiply.

16. 7.4×9.2

17. 15.6×9.142

18. 0.91×0.004

Add.

19.
$$\begin{array}{r} 322.29 \\ 174.00 \\ + 4.52 \\ \hline \end{array}$$

20.
$$\begin{array}{r} 19.38 \\ 7.8 \\ + .007 \\ \hline \end{array}$$

21.
$$\begin{array}{r} 9.65 \\ 0.0024 \\ + 342.1 \\ \hline \end{array}$$

22.
$$\begin{array}{r} 708.326 \\ 57.942 \\ + 9.888 \\ \hline \end{array}$$

23.
$$\begin{array}{r} 542.36 \\ 400.50 \\ + 0.724 \\ \hline \end{array}$$

24.
$$\begin{array}{r} 414.6 \\ 8.05 \\ + 960 \\ \hline \end{array}$$

SECTION 6-3 Unit Pricing

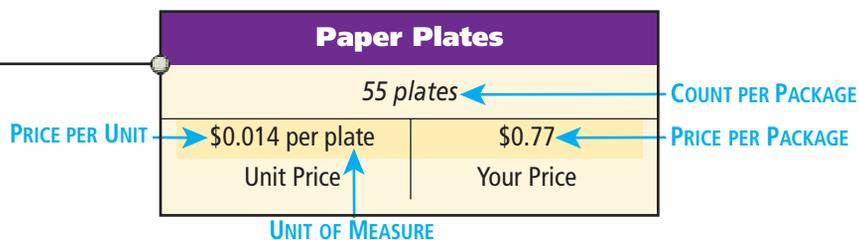
Section Objective

Figure out the unit price.

There's a barbecue on Saturday, and you're in charge of bringing paper plates. At the grocery store you notice two different sizes. You're comparing the unit price. **Unit pricing** is a system that allows shoppers to compare the prices of various items quickly and easily. Retail stores often give unit price information for their products. You can use this information to determine which size of a product is the better buy based solely on price. The unit price of an item is the price of the item divided by its measure or count. It might be expressed as dollars per pound or cents per dozen. You'll need to know:

$$\text{Unit Price} = \frac{\text{Price per Item}}{\text{Measure or Count}}$$

Figure 6.2



Living in the Real World

Sifting through the Gently Used

Mismatched Tumblers Don't Cost Much As the pink flamingoes disappear around the corner, another customer enters Secondhand Rose. The man heads for the glassware section where vintage cups and glasses are lined up like soldiers on the shelves. Reitz shows him a box of 48 large smoky blue tumblers. She'll sell them for \$24.

Draw Conclusions How did the customer calculate that each glass cost \$0.50 a piece?

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Need Help? Go to...

- **Workshop 7:**
Dividing Decimals,
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- **Workshop 2:**
Rounding Numbers,
page 6
- **Skill 11:** Dividing
Decimals, page 738
- **Skill 2:** Rounding
Numbers, page 729
- **Application A:**
Formulas, page 760

Example 1

Shane Burns purchased a 34.5-ounce can of coffee for \$3.99, a 2-liter bottle of cleaner for \$3.98, and a dozen oranges for \$3.96. What is the unit price of the items to the nearest tenth of a cent?

STEP: Find the unit price.

Price per Item ÷ Measure or Count

Coffee:	\$3.99	÷	34.5		= \$0.1156 or \$0.116 or \$0.12 per ounce
Cleaner:	\$3.98	÷	2		= \$1.99 per liter
Oranges:	\$3.96	÷	12		= \$0.33 per orange

CONCEPT CHECK**SELF-CHECK**

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

1. A 64-ounce carton of orange juice costs \$3.69. Find the unit price per ounce to the nearest tenth of a cent.
2. A 20-count package of plastic storage bags costs \$2.29. Find the price per bag to the nearest tenth of a cent.

SECTION 6-3 PRACTICE

Round to the nearest tenth of a cent.

	Price per Item	÷	Measure or Count	=	Unit Price
3.	\$ 0.99	÷	12 oz	=	
4.	7.99	÷	40 oz	=	
5.	10.54	÷	16 m	=	
6.	0.89	÷	2 L	=	

Round to the nearest cent.

7. Bernard Parks buys jam at 32 ounces for \$3.89. What is the price per ounce?
8. Market Foods sells 24 cans of soda for \$6.79. What is the price per can?
9. Batteries (2 per pack) sell for \$2.99. What is the price per battery?
10. A 12-pack of markers sells for \$5.54. What is the price per marker?
11. Laura Zeedy recently purchased 4 tires for her sport utility vehicle. The total purchase price was \$339.16. What was the price per tire?
12. Alan Kinsman sees that salsa is on sale for 3 sixteen-ounce jars for \$5.99. What is the price per ounce when he buys three jars?
13. Tania Ramirez purchases 25 hanging file folders for \$6.99. What is the price per folder?
14. A 12-ounce box of cereal costs \$2.29. What is the unit price to the nearest tenth of a cent?

MAINTAINING YOUR SKILLS

Need Help? Go to...

Skill 2: Rounding
Numbers, page 729

Divide. Round answers to the nearest hundredth (also known as cent).

15. $190.50 \div 76$ 16. $13.4 \div 2.9$ 17. $27.218 \div 7.6$

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

18. 62.9 19. 19.8 20. 411.61

Round to the nearest tenth.

21. 21.78 22. 741.92 23. 2.348

Round to the nearest hundredth (also known as cent).

24. 3.218 25. 87.161 26. 430.144

SECTION 6-4 Comparison Shopping

Section Objective

Find the better buy based on unit price.

You compare the unit prices of products so you can decide which size to buy. If price is the only consideration, then the package with the lowest unit price is the better buy. If the larger size product is the better buy, consider whether or not you will use it all before it goes to waste.

Living in the Real World

Sifting through the Gently Used

It's a Deal Reitz's customer continues to look for glasses for his wife's birthday party. Reitz brings out four dozen glasses that she paid only \$10 for at auction, so she can sell them for twice that.

Draw Conclusions What are the benefits of comparison shopping?

Continued on page 241

Example 1

Oatmeal is sold in three sizes. The price of an 18-ounce package is \$1.86. The price of a 42-ounce package is \$3.17. The price of a 112-ounce package is \$6.29. Based on price alone, which package is the best buy?

STEP 1: Find the unit price for each item.

	Price per Item ÷ Measure or Count			
18-ounce package:	\$1.86	÷	18	= \$0.10333
	\$0.10333	×	100	= 10.33¢
				per ounce
42-ounce package:	\$3.17	÷	42	= \$0.07547
	\$0.07547	×	100	= 7.55¢
				per ounce
112-ounce package:	\$6.29	÷	112	= \$0.05616
	\$0.05616	×	100	= 5.62¢
				per ounce

STEP 2: Find the best buy.

Compare: 10.33¢, 7.55¢, and **5.62¢** ← **best buy**

Need Help? Go to...

- **Workshop 7:**
Dividing Decimals,
page 16
- **Workshop 1:**
Writing and
Reading Numbers,
page 4
- **Skill 11:** Dividing
Decimals, page 738
- **Skill 1:** Numbers,
page 727
- **Application A:**
Formulas, page 760

SELF-CHECK

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

1. Coffee creamer comes in two sizes: a 22-ounce jar costs \$2.95 and a 16-ounce jar costs \$2.19.
2. Granola cereal is offered in two sizes: a 14-ounce box costing \$2.50 and a 20-ounce box costing \$3.58.

Find the unit price to the nearest tenth of a cent and then determine the better buy based on price alone.

3. Note cards.
 - a. Pack of 100 for \$1.69.
 - b. Pack of 300 for \$1.27.
 - c. Which is the better buy?
4. Paper clips.
 - a. Box of 100 for \$0.38.
 - b. Five-pack of 100 each for \$1.27.
 - c. Which is the better buy?
5. Alicia Murphy has a choice of two sizes of stain and varnish. The 237-milliliter can sells for \$3.96, while the 946-milliliter can sells for \$7.96. Which size is the better buy? What must she consider other than price?
6. Jeff Evans wants to purchase some assorted chocolates. A 2-ounce box sells for \$0.88, a 16-ounce box sells for \$7.18, and a 32-ounce box sells for \$14.38. Which size box is the best buy?
7. Kathy Kruse is shopping for spaghetti sauce in Columbus, Ohio. She sees the spaghetti sauces as follows: the 26-ounce jar for \$1.50, the 45-ounce jar for \$2.48, and the 66-ounce jar for \$3.12. What size is the best buy?
8. An 8-pack of 75 notes per pad sells for \$4.97. A 12-pack of 75 notes per pad sells for \$7.47. A 4-pack of 50 notes per pad sells for \$1.97. Which size package is the best buy?
9. Guiseppe Gerken wants to purchase some batteries. A 6-pack costs \$4.77. An 8-pack costs \$5.67. A package of four 4-packs costs \$7.95. Which is the best buy?
10. Kenny Chape's favorite microwave popcorn sells as follows: a 3-pack for \$0.97, an 8-pack for \$2.00, and a 28-pack for \$5.99. Which size is the best buy?
11. Wu Chong is buying potato chips. He notes that the following sizes are for sale: $1\frac{3}{4}$ -ounce for \$0.50, $5\frac{3}{4}$ -ounce for \$1.00, and a 2-pack of the $5\frac{3}{4}$ -ounce size for \$1.88. Which size is the best buy?
12. The Food Chain sells spearmint gum in packs containing five sticks of gum. A single pack costs \$0.25, a ten-pack carton sells for \$1.79, 2 ten-pack cartons sell for \$3.00, and 2 twenty-pack cartons sell for \$4.99. Which size is the best buy?

MAINTAINING YOUR SKILLS

Need Help? Go to...

➤ Skill 11: Dividing Decimals, page 738

➤ Skill 1: Numbers, page 727

Divide. Round answers to the nearest hundredth (also known as cent).

13. $2.3 \div 49.16$

14. $0.250 \div 18.5$

15. $0.006 \div 0.8703$

Which number is greater?

16. \$1.568 or \$1.586

17. \$0.2326 or \$0.2349

18. \$0.51 or \$0.501

SECTION 6-5 Coupons and Rebates

Section Objective

Work out the final price after using a coupon or rebate.

Many manufacturers, stores, and service establishments offer customers discounts through **coupons** and **rebates**, or refunds. These special discounts are an incentive for customers to purchase a particular item in order to save money (coupon) or to get money back (rebate). Manufacturer or store coupons are redeemed at the time of purchase. To obtain a manufacturer's rebate, the consumer must mail in a rebate coupon along with the sales slip and the Universal Product Code (UPC) label from the items.

You can remember to calculate the final price of an item by using:

$$\text{Final Price} = \text{Total Selling Price} - \text{Total Savings}$$

Living in the Real World

Sifting through the Gently Used

"Boostcoup" Savings Reitz is very active in the community where she lives. She has agreed to allow the local high school chess club booster organization to put a discount coupon for her store in their "Boostcoup" booklet. The club raises money by selling the booklets for \$20, and the buyers use the coupons in local stores and restaurants. Today, a college student has come in to buy a bookcase. He hauls the furniture to the counter and presents the coupon.

"Twenty percent off," Reitz says. "The sale price is \$32."

Draw Conclusions How much does the college student save on the bookcase? What is the college student's total bill (include \$1.28 in tax for the sale)?

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Need Help? Go to...

- **Workshop 5:**
Subtracting
Decimals, page 12
- **Skill 6:** Subtracting
Decimals, page 733
- **Application A:**
Formulas, page 760

Example 1

Gus Senton purchased a heavy-duty nailer for \$249.00 and a compressor for \$349.00. He had a coupon for \$50 off. What is the final price of the items?

STEP: Find the final price.

Total Selling Price – Total Savings			
(\$249 + \$349)	–	\$50	=
\$598	–	\$50	= \$548 final price

CONCEPT CHECK

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

- | | |
|---|---|
| <p>1. Forty-ounce pancake mix: \$3.39
Coupon for \$0.55.
What is the final price?</p> | <p>2. Tea: \$2.59
Coupon for \$0.35.
What is the final price?</p> |
|---|---|

Continued on next page

SELF-CHECK

3. Thirty-two-ounce jam costs \$3.69. Twenty-eight-ounce peanut butter costs \$3.79. Coupon for \$0.35 if both items are bought. What is the final price?
4. Oatmeal costs \$4.19. Coupon for \$1.00 off if two boxes are bought. What is the final price if you buy two?

SECTION 6-5 PRACTICE

For Problems 5–10, find the final price of each item.

	Item	Total Selling Price	Coupon	Final Price
5.	Bleach	\$3.95	\$0.50	
6.	Floor cleaner	5.99	0.50	
7.	Toilet paper 24-pack	7.89	1.00	
8.	Pancake 60-oz	4.69	0.75	
9.	Yogurt	0.79	0.55 buy 6	
10.	Chocolate chunks	2.79	0.50 buy 2	

11. Audrey Bailey purchased a chicken combo sandwich for \$4.59. She had a store coupon for \$0.50. What is the final price of the sandwich?
12. Wilbur Clark purchased a computer hard drive for the regular price of \$129.99. The store gave him a \$30.00 manufacturer's rebate to mail in. What is the final price?
13. Michael Noll purchased the men's razor refill for the regular price of \$6.29. He had a \$2.00 manufacturer's rebate. What is the final price?
14. Jonnie Marker has a coupon for \$1.00 off a jar of bean dip if he buys 2 bags of corn chips. He purchased 2 bags of chips for \$3.99 per bag and a jar of bean dip for \$2.79. What is the final price?
15. Shawn Derricotte purchased a scanner for \$129.99. What is the price after the \$50.00 manufacturer's rebate?
16. Tammy Duffey purchased a digital phone for \$179.99. She received an \$80.00 mail-in rebate from the manufacturer and a \$50.00 mail-in rebate from the telephone company. What is the price after the rebates?
17. Additional memory for your computer sells for \$109.99 with a mail-in rebate of \$10.00. What is the final price after the rebate if an envelope costs \$0.25 and a postage stamp costs \$0.37?

MAINTAINING YOUR SKILLS

Need Help? Go to...

► Skill 6: Subtracting Decimals, page 733

Subtract.

$$\begin{array}{r} 18. \quad \$1.65 \\ - \quad 0.35 \\ \hline \end{array}$$

$$\begin{array}{r} 19. \quad \$11.65 \\ - \quad 3.00 \\ \hline \end{array}$$

$$\begin{array}{r} 20. \quad \$1.79 \\ - \quad 0.25 \\ \hline \end{array}$$

SECTION 6-6 Markdown

Section Objective

Solve for the dollar amount of the markdown.

Stores often sell products at sale prices, which are lower than their regular selling prices. The **markdown**, or discount, is the amount of money that you save by purchasing a product at the sale price.

$$\text{Markdown} = \text{Regular Selling Price} - \text{Sale Price}$$

Living in the Real World

Sifting through the Gently Used

Yellow Tags and Fuchsia Cats A customer likes a cat crocheted of fuchsia yarn. She notices the color of the price tag attached to the cat's ear; this signifies it's marked down 25 percent.

Draw Conclusions What are the benefits of a store marking down products? Are there any drawbacks?

Continued on page 246

Need Help? Go to...

- **Workshop 5:**
Subtracting
Decimals, page 12
- **Skill 6:** Subtracting
Decimals, page 733
- **Application A:**
Formulas, page 760

Example 1

Nora Maag purchased a camcorder at a sale price of \$499.99. The regular selling price is \$549.99. What was the markdown?

STEP: Find the markdown.

$$\text{Regular Selling Price} - \text{Sale Price}$$

$$\$549.99 - \$499.99 = \$50.00 \text{ markdown}$$

CONCEPT CHECK

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

1. Shirts Are Us has a clearance on overstocked merchandise. A long-sleeve V-neck top that usually sells for \$36.00 is on sale for \$23.00. What is the markdown?
2. The regular selling price of a HDTV monitor is \$1,899.99. The sale price is \$1,789.99. Find the markdown.

SELF-CHECK

The **markdown rate**, or discount rate, of an item is its markdown expressed as a percent of its regular selling price. Businesses frequently advertise the markdown rate rather than the sale price. You'll need to know that:

$$\text{Markdown} = \text{Regular Selling Price} \times \text{Markdown Rate}$$

- ▶ **Workshop 14:**
Finding a
Percentage, page 30
- ▶ **Workshop 2:**
Rounding Numbers,
page 6
- ▶ **Skill 30:** Finding
the Percentage,
page 757
- ▶ **Skill 2:** Rounding
Numbers, page 729

SELF-CHECK

Example 2

Furniture World has a special on oak furniture at 40 percent to 55 percent off the regular selling price. Chad Wolfrum purchased an oak table at 40 percent off the regular price of \$799. How much is the markdown?

STEP: Find the markdown.

Regular Selling Price × Markdown Rate

$$\$799.00 \quad \times \quad 40\% \quad = \quad \$319.60 \text{ markdown}$$

CONCEPT CHECK

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

- Outerwear coats and jackets are on sale at the clearance sale. A leather jacket is on sale for 40 percent off the regular selling price of \$219.99. Find the markdown.
- Microfiber raincoats are on sale for 50 percent off the regular selling price of \$239.99. What is the markdown?

SECTION 6-6 PRACTICE

	Item	Regular Selling Price	−	Sale Price	=	Markdown
5.	Table	\$169.99	−	\$ 99.99	=	
6.	Shirt	16.99	−	11.99	=	
7.	Purse	65.95	−	45.50	=	
8.	TV	499.00	−	399.00	=	

- Tax software.
Regularly sells for \$74.95.
Sale price is \$59.95.
What is the markdown?
- Minivan.
Regularly sells for \$34,495.
Sale price is \$29,595.
What is the markdown?
- Jeans.
Regularly sell for \$36.99.
Markdown rate is 25 percent.
What is the markdown?
- Plastic cups.
Regularly sell for \$2.29.
Markdown rate is 30 percent.
What is the markdown?
- Bargains on video games usually occur in January. Angie Sigler purchases a game console set that regularly sells for \$59.95. The set is on sale for \$44.95. What is the markdown?
- April is usually a good month to purchase home improvement supplies. A sheet of cedar paneling at the lumber company regularly sells for \$58.50. Jud Stassi purchases the paneling on sale for \$48.95 a sheet. What is the markdown?

15. A 24.9 cubic foot side-by-side refrigerator that regularly sells for \$1,049.92 is marked down 10 percent during a May sale. What is the markdown?
16. Instant oatmeal sells for \$3.67 a box. During a January sale the oatmeal has a special deal of 2 for \$5.00. How much can be saved by purchasing the oatmeal during the sale?
17. Printer Paper Store sells laser paper for \$9.99 per ream. A special offer states: Buy 2, get 1 free. If you buy 2 reams, and get 1 free, what is your cost per ream? What is your markdown per ream?
18. Office Products has a box of 500 envelopes on sale for as low as \$12.99 (with a list price of \$44.00). What is the total markdown?
19. Mattress & Furniture sells a queen 2-piece bedroom set for \$1,100. The sale price is \$559.95 with a bonus discount of \$60 if purchased during a mid-winter clearance sale. What is the total markdown?
20. Men's waterproof safety toe boots are on sale for \$89.99. The regular price is \$150.00. What is the markdown?
21. Jeremy Berkowitz purchases a down jacket during an April coat sale at the Ski Shop. All coats are discounted 45 percent. The down jacket regularly sells for \$154.50. What is the markdown?
22. Consider the Veterans Day sale on men's clothing. The ad says that the store will take an extra 50 percent off for a total savings of 60 to 65 percent on clearance dress shirts. Shirts that were originally \$29.50 to \$45.00 will have a final cost of \$11.06 to \$16.88. Is the total savings 60 percent to 65 percent?

MAINTAINING YOUR SKILLS

Need Help? Go to...

- ▶ Skill 6: Subtracting Decimals, page 733
- ▶ Skill 30: Finding the Percentage, page 757

Subtract.

$$\begin{array}{r} 23. \quad 401.44 \\ - \quad 98.25 \\ \hline \end{array}$$

$$\begin{array}{r} 24. \quad 79.7 \\ - \quad 9.924 \\ \hline \end{array}$$

$$\begin{array}{r} 25. \quad 5.6 \\ - 4.6301 \\ \hline \end{array}$$

$$\begin{array}{r} 26. \quad 73.291 \\ - 62.824 \\ \hline \end{array}$$

Find the percentage.

27. 30% of \$120

28. 40% of \$280

29. $\frac{1}{4}$ % of 850

30. 230% of 550

SECTION 6-7 Sale Price

Section Objective

Compute the sale price when markdown rate is known.

For items that are on sale, some stores advertise the amount of markdown and the regular selling price. Some stores indicate that the item is a stated percent off the regular price. If you know the markdown, you can calculate the **sale price** as follows:

$$\text{Sale Price} = \text{Regular Selling Price} - \text{Markdown}$$

What if you know the markdown percent? When you receive 25 percent off the selling price of an item, you pay 75 percent of the selling price of the item. The regular selling price of an item is 100 percent. The *percent paid*, then, is 100 percent minus the percent off. Here's what you'll need to remember:

$$\text{Sale Price} = \text{Percent Paid} \times \text{Regular Selling Price}$$

Note: If you use the second formula, then you first need to calculate the percent paid:

$$\text{Percent Paid} = 100\% - \text{Percent Off}$$

Living in the Real World

Sifting through the Gently Used

Come Again for More Cats The woman holding the crocheted cat is going to give it to her sister-in-law as a birthday present. Originally the cat cost \$4.40. But the cat is now 25 percent off. Reitz puts the woman's money in the cash register and carefully wraps the cat.

Draw Conclusions What is the sales price of the cat? (Calculate without tax.)

Continued on page 249

Example 1

Debralee Medford has a 25 percent off coupon and is purchasing a watch that has a regular price of \$125.00. What is the sale price for the watch? What is the sale price using the percent paid method?

STEP 1: Find the markdown.

$$\text{Regular Selling Price} \times \text{Markdown Rate}$$

$$\$125.00 \times 25\% = \$31.25$$

STEP 2: Find the sale price.

$$\text{Regular Selling Price} - \text{Markdown}$$

$$\$125.00 - \$31.25 = \$93.75 \text{ sale price}$$

STEP 3: Find the percent paid.

$$100\% - \text{Percent Off}$$

$$100\% - 25\% = 75\%$$

STEP 4: Find the sale price.

$$\text{Percent Paid} \times \text{Regular Selling Price}$$

$$75\% \times \$125 = \$93.75 \text{ sale price (using percent paid method)}$$

Need Help? Go to...

- **Workshop 14:**
Finding a Percentage, page 30
- **Workshop 5:**
Subtracting Decimals, page 12
- **Skill 30:** Finding the Percentage, page 757
- **Skill 6:** Subtracting Decimals, page 733
- **Application A:**
Formulas, page 760

CONCEPT CHECK

SELF-CHECK

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

1. The regular selling price of men's jeans is \$37.99. The markdown rate is 20 percent. Find the sale price.
2. The regular selling price of a fire safe is \$329.99. The markdown rate is 30 percent. Find the sale price.
3. The regular selling price of a treadmill is \$2,899. The markdown rate is 20 percent. Use the percent paid to determine the sale price.
4. The regular selling price of a cashmere sweater is \$198. The markdown rate is 33 percent. Use the percent paid to determine the sale price.

SECTION 6-7 PRACTICE

5. Rechargeable lantern.
Regularly sells for \$29.99.
Markdown rate is 30 percent.
What is the sale price?
6. Compact stereo.
Regularly sells for \$229.99.
Markdown rate is 53 percent.
What is the sale price?
7. Paint.
Regularly sells for \$22.99.
Markdown rate is 20 percent.
 - a. What is the percent paid?
 - b. What is the sale price?
8. Sweeper.
Regularly sells for \$129.99.
Markdown rate is 25 percent.
 - a. What is the percent paid?
 - b. What is the sale price?
9. Shoe Store has marked down men's work and outdoor boots 25 percent during its spring sale. What is the sale price of a pair of boots with a regular price of \$149.99?
10. During an August back-to-school sale, Casual Clothes has marked down its line of dress shirts 30 percent. These shirts are regularly priced at \$27.95 each. What is the sale price of these shirts?
11. Office Store has a computer drive for \$99.99. The sale price is \$69.99 and you have a manufacturer's coupon for \$20.00. What is your final price?
12. The Pizza Shack discounts 15 percent off the regular selling price on the purchase of 3 or more pizzas. What is the sale price on the purchase of 3 pizzas that regularly sell for \$9.75, \$15.75, and \$19.75?
13. A Danny's Department Store advertisement reads that you can save 50 percent to 66 percent off women's fall collections. Items with original prices of \$44.00 to \$152.00 are now \$14.95 to \$76.00. Determine if this ad is correct by verifying the markdowns.
14. Best Deal has a phone on sale for \$19.99. You can save \$80.00. Determine the regular selling price. Determine the percent markdown.

MAINTAINING YOUR SKILLS

Find the percentage. Round answers to the nearest hundredth.

15. 25% of \$74.80 16. 7.5% of 425 17. 8% of 322

Subtract.

18.
$$\begin{array}{r} 471.814 \\ - 389.008 \\ \hline \end{array}$$
19.
$$\begin{array}{r} 37 \\ - 26.321 \\ \hline \end{array}$$
20.
$$\begin{array}{r} 0.016 \\ - 0.0019 \\ \hline \end{array}$$

Need Help? Go to...

► Skill 30: Finding the Percentage, page 757

► Skill 6: Subtracting Decimals, page 733

SECTION 6-1

CONCEPT CHECK (p. 232)

- $\$420 \times 0.05 = \mathbf{\$21.00}$
- $\$2,520.00 \times (6.00\% + 1.00\%) = \$2,520.00 \times 0.07 = \mathbf{\$176.40}$

SECTION 6-2

CONCEPT CHECK (p. 234, 235)

- Find the total selling price: $\$179.50 + \$39.50 = \$219.00$
 - Find the sales tax: $\$219.00 \times 0.0825 = \$18.0675 = \$18.07$
 - Find the total purchase price: $\$219.00 + \$18.07 = \mathbf{\$237.07}$
- Find the total selling price: $(2 \times \$59.99) + (2 \times \$19.99) = \$119.98 + \$39.98 = \$159.96$
 - Find the sales tax: $\$159.96 \times 0.06 = \$9.5976 = \$9.60$
 - Find the total purchase price: $\$159.96 + \$9.60 = \mathbf{\$169.56}$

SECTION 6-3

CONCEPT CHECK (p. 238)

- $\$3.69 \div 64 = \$0.05765 = \mathbf{\$0.058}$
- $\$2.29 \div 20 = \$0.1145 = \mathbf{\$0.11}$

SECTION 6-4

CONCEPT CHECK (p. 239)

- Coffee

22-ounce jar:	$\$2.95 \div 22 = \0.13409 or $\$0.1341$ per ounce
16-ounce jar:	$\$2.19 \div 16 = \0.136875 or $\$0.1369$ per ounce

22-ounce is the better buy
- Cereal

14-ounce box:	$\$2.50 \div 14 = \0.17857 or $\$0.1786$ per ounce
20-ounce box:	$\$3.58 \div 20 = \0.179 or $\$0.1790$ per ounce

14-ounce is the better buy

SECTION 6-5

CONCEPT CHECK (p. 241, 242)

- $\$3.39 - \$0.55 = \mathbf{\$2.84}$ final price
- $\$2.59 - \$0.35 = \mathbf{\$2.24}$ final price
- $(\$3.69 + \$3.79) - \$0.35 = \$7.48 - \$0.35 = \mathbf{\$7.13}$ final price
- $(\$4.19 \times 2) - \$1.00 = \$8.38 - \$1.00 = \mathbf{\$7.38}$ final price

SECTION 6-6

CONCEPT CHECK (p. 243, 244)

- $\$36.00 - \$23.00 = \mathbf{\$13.00}$
- $\$1,899.99 - \$1,789.99 = \mathbf{\$110.00}$
- $\$219.99 \times 40\% = \$87.996 = \mathbf{\$88.00}$
- $\$239.99 \times 50\% = \$119.995 = \mathbf{\$120.00}$

SECTION 6-7

CONCEPT CHECK (p. 247)

- Markdown = $\$37.99 \times 20\% = \$7.598 = \$7.60$

Sale price = $\$37.99 - \$7.60 = \mathbf{\$30.39}$
- Markdown = $\$329.99 \times 30\% = \$98.997 = \$99.00$

Sale price = $\$329.99 - \$99.00 = \mathbf{\$230.99}$
- Percent Paid = $100\% - 20\% = 80\%$; Sale Price = $80\% \times \$2,899 = \mathbf{\$2,319.20}$
- Percent Paid = $100\% - 33\% = 67\%$; Sale Price = $67\% \times \$198 = \mathbf{\$132.66}$

Living in the Real World

Sifting through the Gently Used

Analyze the Story Perhaps this chapter's story will make you check out your local secondhand store. Reitz makes good deals on odds and ends. Now, when was the last time you worked a deal? When was the last time you bargain shopped to get more for your money?

- Real-World Project.** Suppose you have 20 dollars. How far can you make that money go?
- Select one item that you want or need to buy. Shop around to see who has that item for less.
 - Take into account the taxes on that purchase. (So if your item is \$19 then your total bill, with tax included, might come out to more than your allotted \$20.)
 - Comparison shopping makes you a smart consumer. Sometimes when you're in a pinch you might not always have time to shop around for an item. What is more important to you—saving money or saving time?
- Interview.** Ask your family how often they comparison shop. How important is this to the family budget? Share with your class examples of when shopping around saved your family money.



After YOU READ

REVIEW OF KEY WORDS

sales receipt (p. 234)

sales tax (p. 232)

total purchase price (p. 234)

unit pricing (p. 237)

coupons (p. 241)

rebates (p. 241)

sale price (p. 246)

markdown (p. 243)

markdown rate (p. 243)

Match one of the key words above with a definition below.

- the amount of money that is saved by buying an item at the sale price.
- a product sold for a lower price than the regular selling price.
- the markdown of an item expressed as a percent of the regular sale price.
- a cash register tape or sales slip showing the selling price of items purchased, any sales tax, and the total purchase price.
- the cost per unit of measure or count of an item.
- a tax charged on the selling price of an item or service provided.
- in order to obtain them, a UPC label, sales slips, and a coupon must be mailed in to the manufacturer.
- is equal to the selling price plus the sales tax.
- redeemed at the time of purchase to obtain a discount.

Skills and Concepts

SECTION OBJECTIVE 6-1 AND EXAMPLES

Compute the sales tax.

Jeffrey Dahlin bought a backpack that had a selling price of \$49.50. What is the sales tax on his purchase if he lives in a state where the sales tax rate is 6 percent?

STEP: Find the sales tax.

$$\begin{array}{r} \text{Total Selling Price} \times \text{Sales Tax Rate} \\ \$49.50 \quad \times \quad 0.06 \quad = \quad \$2.97 \text{ sales tax} \end{array}$$

REVIEW EXERCISES

10. Joshua Okwy was planning to go camping with his family. He purchased a tent for \$199.98, a lantern for \$39.50 and an outdoor stove for \$59.95. He lives in North Carolina, where the sales tax is 6 percent. What is the sales tax?

Compute the sales tax.

11. Total selling price \$654.34; sales tax rate 5%.
 12. Total selling price \$1,238.45; sales tax rate $8\frac{1}{2}\%$.
 13. Total selling price \$12.84; sales tax rate $7\frac{1}{4}\%$.

SECTION OBJECTIVE 6-2 AND EXAMPLES

Calculate the total purchase price.

Anderson's Country Store advertised wool blankets for \$36.99. What is the sales tax if the state rate is 5.5 percent? What is the total purchase price?

STEP 1: Find the sales tax.

$$\begin{array}{r} \text{Total Selling Price} \times \text{Sales Tax Rate} \\ \$36.99 \quad \times \quad 0.055 \\ = \quad \$2.03 \text{ sales tax} \end{array}$$

STEP 2: Find the total purchase price.

$$\begin{array}{r} \text{Total Selling Price} + \text{Sales Tax} \\ \$36.99 \quad + \quad \$2.03 \\ = \quad \$39.02 \text{ total purchase price} \end{array}$$

REVIEW EXERCISES

14. Gene DeWitt purchased a paper shredder for \$99.95 and a case of computer paper for \$24.95. The sales tax rate is 7.5 percent. What is the total purchase price?

Complete the table below.

	Purchases	Selling Price	Sales Tax Rate	Sales Tax	Total Purchase Price
15.	Cat food	\$ 9.58	6.50%	a.	b.
	Cat litter	4.59			
	Flea powder	5.33			
16.	Ski jacket	149.95	8.25%	a.	b.
	Snowboard	350.00			
	Snow hat	12.75			

17. Sales slip for Lester Gordon: shirt for \$32.97, socks for \$9.95, belt for \$18.50. Sales tax rate is 4 percent. What is the total purchase price?

SECTION OBJECTIVE 6-3 AND EXAMPLES

Figure out the unit price.

Bret Franco purchased a 64-ounce bottle of shampoo for \$3.99. What is the unit price of the shampoo (to the nearest tenth of a cent)?

STEP: Find the unit price.

Price per Item ÷ Measure or Count

$$\$3.99 \div 64 = \$0.062343 \text{ or } \$0.0623 \text{ or } 6.2\text{¢ per ounce}$$

REVIEW EXERCISES

18. Heather Burns takes a multivitamin each morning. She purchased a bottle at the drugstore for \$11.58. It contained 500 vitamins. What is the price per vitamin?

19. James Johnson loves pretzels and takes a bag to work each day. He recently purchased a 32-ounce bag for \$1.99. What is the unit price (to the nearest tenth of a cent)?

Figure out the unit price. Round answers to the nearest tenth of a cent.

	Price per Item	Measure or Count	Unit Price
20.	\$ 0.89	15 oz	
21.	12.50	2 L	

SECTION OBJECTIVE 6-4 AND EXAMPLES

Find the better buy based on unit price.

Pickles are sold in two sizes. The price of a 16-ounce jar is \$2.49. The price of a 32-ounce jar is \$3.15. Based on price alone, which size is the better buy?

STEP 1: Find the unit price for each item.

Price per Item ÷ Unit of Measure

$$16\text{-ounce jar: } \$2.49 \div 16 = \$0.155625 \text{ or } 15.56\text{¢ per ounce}$$

$$32\text{-ounce jar: } \$3.15 \div 32 = \$0.09843 \text{ or } 9.84\text{¢ per ounce}$$

STEP 2: Find the best buy.

The 32-ounce jar is the better buy.

REVIEW EXERCISES

22. A box of 7.5-ounce size crackers costs \$2.50. Also advertised was the 10.5-ounce size for \$3.29. Based on price alone, which one is the better buy?

23. A box of 100 envelopes cost \$2.19. A box of 150 envelopes cost \$2.59. A box of 200 envelopes cost \$2.99. Based on price alone, which box is the best buy?

Find the better buy.

	Small Size	Large Size	Better Buy
24.	\$12.69/30 count	\$23.49/96 count	
25.	1.09/8-oz jar	1.69/12-oz jar	

SECTION OBJECTIVE 6-5 AND EXAMPLES

Work out the final price after using a coupon or rebate.

Barbara Bailey purchased a pair of pants for \$24.99. She had a coupon for 25 percent off. What was the final price for the pants?

STEP: Find the final price.

Total Selling Price – Total Savings

$$\begin{array}{rclcl} \$24.99 & \times & 25\% & = & \$6.25 \end{array}$$

$$\begin{array}{rclcl} \$24.99 & - & \$6.25 & = & \$18.74 \text{ final price} \end{array}$$

REVIEW EXERCISES

26. As Peder Cruiz entered his favorite sporting goods store, he received a coupon for \$10.00 off any item in the store. He decided to purchase a tennis racket that was selling for \$125.98. What was the final price?
27. Carlos Ruiz purchased a water pitcher for \$19.99. What is the price after the \$2.50 manufacturer's rebate?

Compute the final price.

	Item	Total Selling Price	Coupon	Final Price
28.	Catsup	\$ 1.98	\$0.75	
29.	Dog food	15.97	1.25	

SECTION OBJECTIVE 6-6 AND EXAMPLES

Solve for the dollar amount of the markdown.

Nancy Britt purchased a vacuum cleaner on sale for \$149.95. The regular selling price is \$249.50. What was the markdown?

STEP: Find the markdown.

Regular Selling Price – Sale Price

$$\begin{array}{rclcl} \$249.50 & - & \$149.95 & = & \$99.55 \text{ markdown} \end{array}$$

REVIEW EXERCISES

30. Jason Slauch purchased a pair of golf shoes for \$69.99. The regular selling price is \$89.00. What was the markdown?
31. Shelly Ward purchased a mountain bike for 35 percent off the regular price of \$899. How much is the markdown?

Find the markdown.

	Item	Regular Selling Price	Sale Price	Markdown
32.	Pillow	\$34.99	\$29.69	
33.	Lamp	95.59	40% off	

SECTION OBJECTIVE 6-7 AND EXAMPLES

Compute the sale price when the markdown rate is known.

Lee Truk has a coupon for 30 percent off and is purchasing a 12-cup coffee maker that has a regular price of \$19.99. What will he pay for the coffee maker?

STEP 1: Find the markdown.

$$\begin{array}{r} \text{Regular Selling Price} \times \text{Markdown Rate} \\ \$19.99 \quad \times \quad 30\% \\ = \$6.00 \end{array}$$

STEP 2: Find the sale price.

$$\begin{array}{r} \text{Regular Selling Price} - \text{Markdown} \\ \$19.99 \quad - \quad \$6.00 \\ = \$13.99 \text{ sale price} \end{array}$$

REVIEW EXERCISES

34. The regular selling price of a silk scarf is \$49. The markdown rate is 38 percent. Use the percent paid to determine the sale price.

Complete the table.

	Regular Selling Price	Markdown Rate	Markdown	Sale Price
35.	\$ 349.75	25.0%	a.	b.
36.	23,450.00	8.5%	a.	b.
37.	123.45	35.0%	a.	b.



38. Language Arts Dana Dickerson sells candles exclusively through her catalog. She found out that San Francisco has the highest tax rate in the state—8.5 percent. If a catalog customer from San Francisco purchased a dozen votive candles for 58¢ each, what would the total purchase price be, including sales tax? (See Section 6-2.)



39. Social Science Jose Artillo is a general manager of a large department store chain. His research has shown that customers prefer at least 30 percent off an item when considering whether something is a good deal or not. This week he has decided to offer 33 percent off any item in the store. Find the markdown for the following items: wool pants, \$65.95; leather shoes, \$126.50; and straw purses, \$19.95. (See Section 6-6.)



40. Computer Technology Harvey Kellerman purchased a complete computer system for \$1,436.88. He also received a manufacturer's rebate for \$55.00. What was the final price he paid once he received the rebate? (See Section 6-5.)



41. Science Jorge Mendez teaches family and consumer science. For this week's assignment, he is requiring his students to conduct a comparison-shopping activity. One of his students came back to class with the following: sweet peas, 10-ounce package, \$1.09; 14-ounce package, \$1.79; 16-ounce package, \$2.29. Help the student find the best buy, based on price alone. (See Section 6-4.)

Cumulative Test Prep



Test-Taking Tip

When taking a standardized test, you may be able to find the correct answer using estimation. Perform the proper operations with rounded numbers and look to see which answer choices are reasonable for the information given in the problem.

SECTION ONE: MULTIPLE CHOICE

There are eight multiple-choice questions in this section. After working each problem, write the letter of the correct answer on your paper.

- Nick Bronson is paid \$6 for each birdhouse he assembles. If he made 12 yesterday and 17 today, how much money did he earn?

<input type="radio"/> (A) \$102	<input type="radio"/> (B) \$174
<input type="radio"/> (C) \$198	<input type="radio"/> (D) \$204
- Tomas Olivera keeps records of his family's expenses. Total monthly expenses for September, October, and November were \$1,787.43, \$1,891.74, and \$1,811.12 respectively. What was the average monthly expenditure?

<input type="radio"/> (A) \$5,940.29	<input type="radio"/> (B) \$5,490.29
<input type="radio"/> (C) \$1,830.10	<input type="radio"/> (D) \$1,710.07
- George Pinewood deposited \$54.21 in currency and a check for \$348.19 in his savings account. What was his total deposit?

<input type="radio"/> (A) \$401.40	<input type="radio"/> (B) \$402.40
<input type="radio"/> (C) \$403.40	<input type="radio"/> (D) \$420.04
- Jay Stone's gross weekly pay is \$280.00. His earnings to date are \$9,240.00. What amount is deducted from his pay this week for Social Security taxes? (Note: The rate is 6.2 percent.)

<input type="radio"/> (A) \$4.06	<input type="radio"/> (B) \$16.80
<input type="radio"/> (C) \$17.36	<input type="radio"/> (D) \$17.64
- In the Morenos' budget for this month, they had planned to spend \$187.50 on transportation costs. They actually spent \$212.45. How much more or less did they spend on transportation expenses than they originally planned?

<input type="radio"/> (A) \$399.95 more than originally planned
<input type="radio"/> (B) \$24.95 more than originally planned
<input type="radio"/> (C) \$24.95 less than originally planned
<input type="radio"/> (D) \$12.45 less than originally planned
- Martin Gillis compares the prices for paper towels. A 24-roll package is \$19.99. A 12-roll package is priced at \$11.99. A 3-roll package is priced at \$2.89. A single roll is priced at \$0.89. Based on price alone, which is the better buy?

<input type="radio"/> (A) 24-roll package
<input type="radio"/> (B) 12-roll package
<input type="radio"/> (C) 3-roll package
<input type="radio"/> (D) single roll
- Boston Savings Bank pays 6 percent interest compounded quarterly on regular savings accounts. Fred Pilliod deposited \$1,800 in a regular savings account for $1\frac{1}{2}$ years. He made no other deposits or withdrawals. How much interest will he earn? (Note: Use the Compound Interest—Amount of \$1.00 table on page 797.)

<input type="radio"/> (A) 1.09344	<input type="radio"/> (B) 1.07728
<input type="radio"/> (C) \$1,968.19	<input type="radio"/> (D) \$168.19
- Jill Dohr deposited a check for \$701.32. She also deposited coins totaling \$15.97 and currency totaling \$108. What was her total deposit?

<input type="radio"/> (A) \$717.29	<input type="radio"/> (B) \$809.32
<input type="radio"/> (C) \$820.29	<input type="radio"/> (D) \$825.29

SECTION TWO: FREE RESPONSE

This section contains eight questions for which you will supply short answers. Write your answers on your paper.

- If a company pays 80 percent of a group insurance plan that costs \$3,000 annually, how much is deducted from the employee's monthly paycheck?
(Remember that the employee pays the remaining 20 percent.)
- Commission: 4 percent first \$2,000; 8 percent over \$2,000. Find the total graduated commission on \$8,800.
- Maria Diaz statement balance is \$952.64. Check numbers 901 and 905, in the amounts of \$47.27 and \$59.23, are outstanding. She also has an outstanding deposit of \$200.00. She reconciles the statement. What should her adjusted balance be?
- Tony Vivoni pays for a new surround sound system with a check in the amount of \$763.45. Write the amount in words as it would appear on a check.
- Bart Rodger's statement balance is \$649.12. He has 2 outstanding checks in the amounts of \$123.99 and \$75.45. He also has an outstanding deposit of \$125. He reconciles the statement. What should his adjusted balance be?
- Taylor Cotton deposits \$4,000 in an ordinary annuity after each quarter for 1 year. The account pays 6 percent interest compounded quarterly. What is the future value of the account in 1 year?
(Note: Use the Future Value of an Ordinary Annuity for \$1.00 per Period table on page 798.)
- A brand of salad dressing that Sally Beckman prefers is on sale at Foodway. She can buy an 8-ounce bottle for \$3.29 or a 12-ounce bottle for \$3.89. What is the unit price of each package?
- Andrea Cho purchased a new outfit at the back-to-school sale in August. All the clothing was marked down 25 percent. The outfit was regularly priced at \$87.69. What was the sale price of the outfit?

SECTION THREE: OPEN-ENDED

This section contains four open-ended questions. Demonstrate your knowledge by giving a clear, concise solution to each problem. Your score on these problems will depend on how well you do in the following:

- Explain your reasoning.
 - Show your understanding of mathematics in an organized manner.
 - Use charts, graphs, and diagrams in your explanation.
 - Show the solution in more than one way or relate it to other situations.
 - Investigate beyond the requirements of the problem.
- Why might someone choose to have no withholding allowances when figuring taxes to withhold?
 - What would you do if an unpredictable expense occurred and your emergency fund is not enough to cover it?
 - Why do you think it might be beneficial to compare interest rates and interest periods at several banks before you open your savings account?
 - What do state, county, and city governments do with the sales tax money they collect?

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