

## 6-1

# Computing Sales Tax

Most states charge a **sales tax** on goods sold. This tax is usually a percentage of the selling price and varies from state to state. Some states also allow local and city governments to impose their own taxes in addition to the state tax.

**Example****Find the sales tax.**

Lucas Ingles bought a new DVD player for \$199.00 and 3 films on DVD, each with a selling price of \$24.95. If his state tax rate is 5 percent, what is the sales tax on his purchases?

1. Find the total selling price.

$$\$199 + (\$24.95 \times 3) = \$199 + \$74.85 = \mathbf{\$273.85 \text{ total selling price}}$$

2. Find the sales tax.

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

$$\$273.85 \times 0.05 = \mathbf{\$13.69 \text{ sales tax}}$$

**Practice****Find the sales tax.**

1. Total selling price: \$500. State sales tax rate: 6 percent.
2. Total selling price: \$1,367.85. State sales tax rate: 5.75 percent.
3. Total selling price: \$795. State sales tax rate: 6 percent. City tax rate: 1 percent.
4. Total selling price: \$1,207.74. State sales tax rate: 7 percent. City tax rate: 1.5 percent.
5. Yeshemi Yaurez is going on a camping trip. At the local sporting goods store he bought a tent for \$129.99, a sleeping bag for \$49.95, and a lantern for \$29.49. If the state sales tax rate is 4 percent, what is his total sales tax?
6. Michaela Roberts is getting married. At Tiffany's Bridal Boutique, she paid \$650 for her gown, \$99.85 for her veil, and \$39.99 for her shoes. If the state tax is 5 percent and the city tax is 1.5 percent, how much sales tax did Roberts have to pay on her purchases?
7. Hope Landers bought a new pool for \$1,549, a pump for \$289.75, and chemicals for \$192.33. If the state tax is 6 percent, the city tax is 1.5 percent, and the county tax is 1 percent, what is her total sales tax?
8. **Standardized Test Practice** Lily Stevens was just hired for a new job at the bank. She goes to the local mall for new business attire and buys 2 suits costing \$99.74 each, 3 blouses for \$31.05 each, and a new pair of shoes for \$45.50. If the state tax is 6.25 percent, the city tax is 1.25 percent, and the county tax is 0.25 percent, what is her total sales tax?  
**A. \$26.21    B. \$13.66    C. \$21.13    D. \$25.36**

## 6-2

# Calculating the Total Purchase Price

When you buy something, you usually receive a **sales receipt** as proof of your purchase. This receipt includes the selling price of each item you purchase, any sales tax you pay, and your total cost. The **total purchase price** is equal to the selling price plus the sales tax.

### Example

**Find the total purchase price.**

Lucas Ingles bought a new DVD player for \$199.00 and 3 films on DVD, each with a selling price of \$24.95. If his state tax rate is 5 percent, what is his total purchase price?

1. Find the total selling price.  
 $\$199.00 + (\$24.95 \times 3) = \$199.00 + \$74.85 = \$273.85$  total selling price
2. Find the sales tax.  
**Total Selling Price  $\times$  Sales Tax Rate = Sales Tax**  
 $\$273.85 \times 0.05 = \$13.69$  sales tax
3. Find the total purchase price.  
**Total Selling Price + Sales Tax = Total Purchase Price**  
 $\$273.85 + \$13.69 = \$287.54$  total purchase price

### Practice

**Find the sales tax and the total purchase price for Problems 1–4.**

	Item	Total Selling Price	×	Sales Tax Rate	=	Sales Tax	Total Purchase Price
1.	Photo Album	\$ 16.95	×	5.00%	=	a.	b.
2.	Air Conditioner	399.00	×	5.50%	=	a.	b.
3.	Sofa and Loveseat	1,528.75	×	6.00%	=	a.	b.
4.	Boat	17,181.17	×	6.25%	=	a.	b.

5. Yeshemi Yaurez went to the local sporting goods store, where he bought a fishing pole for \$32.88, a tackle box for \$15.95, and some lures for \$9.79. If the state sales tax rate is 4 percent, what is his total purchase price?
6. Michaela Roberts is completing last minute details for her wedding. At Perfect Parties, she bought 100 favors at \$2.50 each, a box of bubbles costing \$14.88, and ribbon with a price tag of \$4.69. If the state tax is 5 percent and the city tax is 1.5 percent, what is her total purchase price?
7. Hope Landers purchases an air conditioner for \$546.58 and a fan for \$45.50. If the state tax is 6 percent, the city tax is 1.5 percent, and the county tax is 1 percent, what is her total purchase price?
8. **Standardized Test Practice** Misty Malone is attending horse camp for the summer. She purchases a saddle for \$389.72 and riding boots for \$125.75. If the state tax is 6.25 percent, the city tax is 1.25 percent, and the county tax is 0.25 percent, what is her total purchase price?  
**A. \$39.95    B. \$555.42    C. \$32.22    D. \$547.69**

## 6-3

**Determining the Unit Price**

**Unit pricing** is a store system that allows you to quickly compare prices for different items. In this way, you can determine which product is a better buy for your money. The unit price of an item is its cost per unit of measure, such as dollars per pound or cents per dozen.

**Example**

**Find the unit price.**

At the local video store Lucas Ingles rented 3 DVDs for a total cost of \$7.95 and bought an 8-pack box of popcorn for \$3.65. What is the unit price of each of the items, rounded to the nearest cent?

1. Find the unit price of the DVDs.

$$\text{Unit Price} = \frac{\text{Price per Item}}{\text{Measure or Count}} = \$7.95 \div 3 = \mathbf{\$2.65 \text{ per unit}}$$

2. Find the unit price of the popcorn.

$$\text{Unit Price} = \frac{\text{Price per Item}}{\text{Measure or Count}} = \$3.65 \div 8 = \mathbf{\$0.46 \text{ per unit}}$$

**Practice**

**Find the unit price.**

1. A box of cereal costs \$3.29 for 14 ounces. Find the unit price per ounce, rounded to the nearest tenth of a cent.
2. A 4-pack of pens costs \$3.18. Find the unit price per pen, rounded to the nearest tenth of a cent.
3. A large 8-slice pepperoni pizza costs \$15.49. Find the unit price per slice, rounded to the nearest cent.
4. The local bakery offers 3 cookies for \$1.00 or 1 dozen cookies for \$3.79. What is the unit price, rounded to the nearest tenth of a cent, if you only buy 3 cookies? What is the unit price if you buy 1 dozen cookies?
5. A department store is running a special on jeans: buy 1 and get 1 at 50 percent off. The jeans usually cost \$39.95. If you buy 2 pair and take advantage of the special, what is the unit price per pair, rounded to the nearest cent?
6. The grocery store is running a sale on soup, offering three 16-ounce cans for \$2.50. What is the unit price per ounce, rounded to the nearest tenth of a cent?
7. A 90-count package of paper plates costs \$1.99. What is the unit cost per plate, rounded to the nearest tenth of a cent?
8. **Standardized Test Practice** A 16-ounce bag of pretzels costs \$1.99, a 24-ounce bag of tortilla chips costs \$2.59, and a 32-ounce bag of potato chips costs \$3.29. Which snack has the lowest unit price per ounce?  
 A. pretzels    B. tortilla chips    C. potato chips    D. they have equal unit prices

## 6-4

**Determining the Better Buy**

By comparing the unit prices of different items, you can determine which is the better buy. The item with the lowest unit price is the best buy, but you should also take into consideration whether you can use a large quantity item before it goes to waste.

**Example****Determine the better buy.**

At the local video store Lucas Ingles sees three different kinds of popcorn: a 3-pack of Pop King for \$1.99; a 6-pack box of Quick Pop for \$2.49; and a 10-pack box of Ready Pop for \$3.99. Based on unit price, which brand is the best buy?

1. Find the unit price of the Pop King.

$$\text{Unit Price} = \frac{\text{Price per Item}}{\text{Measure or Count}} = \$1.99 \div 3 = \$0.663 \text{ per unit}$$

2. Find the unit price of the Quick Pop.

$$\text{Unit Price} = \frac{\text{Price per Item}}{\text{Measure or Count}} = \$2.49 \div 6 = \$0.415 \text{ per unit}$$

3. Find the unit price of the Ready Pop.

$$\text{Unit Price} = \frac{\text{Price per Item}}{\text{Measure or Count}} = \$3.99 \div 10 = \$0.399 \text{ per unit}$$

**The best buy is the 10-pack of Ready Pop.**

**Practice**

**Find the unit price, rounded to the nearest tenth of a cent. Then, based on price alone, determine the better buy.**

1. a. A 16-ounce box of cereal for \$3.29.  
b. A 30-ounce box of cereal for \$4.99.  
c. Which is the better buy?
2. a. A 4-pack of pens for \$0.99.  
b. A 10-pack of pens for \$1.99.  
c. Which is the better buy?
3. a. A small 6-slice pepperoni pizza for \$10.49.  
b. A large 8-slice cheese pizza for \$12.50.  
c. Which is the better buy?
4. The local bakery offers 3 brownies for \$1.25 or 1 dozen brownies for \$4.60. Which is the better buy?
5. A department store is running a special on shirts. A 3-pack costs \$10.95, while a 6-pack costs \$19.95. Which is the better buy?
6. A 12-pack of soda costs \$2.49. A 24-pack of soda costs \$5.19. Which is the better buy?
7. A 90-count package of paper plates costs \$1.99, a 50-count package costs \$1.49, and a 250-count package costs \$4.15. Which is the best buy?
8. **Standardized Test Practice** A 16-ounce can of Mabel's soup costs \$1.45, a 24-ounce can of Savory soup costs \$1.79, and a 32-ounce of Soup Kettle soup costs \$3.19. Which is the best buy?  
A. Mabel's C. Soup Kettle  
B. Savory D. they have equal unit prices

6-5

## Determining the Final Price After a Coupon or Rebate

**Coupons** and **rebates** are offered by many manufacturers and stores as an incentive to buy their products. Coupons are redeemed at the time of purchase, while rebates must be mailed in to obtain your cash refund.

### Example

#### Find the final price.

Lucas Ingles has a coupon that reads \$3.00 off on the purchase of any 3 DVDs. If he purchases 3 DVDs at \$24.95 each and uses the coupon, what is his final price?

1. Find the total selling price.

$$(3 \times \$24.95) = \$74.85 \text{ total selling price}$$

2. Find the final price.

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

$$\$74.85 - \$3.00 = \$71.85 \text{ final price}$$

### Practice

#### Find the final price.

1. Dishwashing liquid: \$1.79. Coupon: 25 cents. What is the final price?
2. Hot mustard: \$1.45. Coupon: \$0.20. What is the final price?
3. Cans of ravioli: \$1.88 each. Coupon: \$0.35 off 3. What is the final price for 3?
4. Worksmith is offering a \$25 mail-in rebate on the purchase of a power drill. If the selling price is \$149.54, what is the final price after the mail-in rebate?
5. Michaela Roberts has a store coupon for \$0.50 off 6 yogurt cups. If the selling price of each yogurt cup is \$0.55, what is the final price for 6?
6. Yeshemi Yaurez has two coupons, one for \$0.55 off a 12-pack of colas and another for \$1.00 off a 24-pack of root beer. If a 12-pack of cola costs \$2.49 and a 24-pack of root beer costs \$5.19, what is the combined final price for the two items?
7. Hope Landers has a rebate form for \$1.50 off the purchase of a toothbrush and toothpaste. If the toothbrush costs \$1.69 and the toothpaste costs \$2.24, what is her final price after the rebate?
8. **Standardized Test Practice** Danny Lubbock has a coupon for \$0.25 off the purchase of 1 can of Savory soup or \$0.55 off the purchase of 3 or more cans. If a can of Savory soup costs \$0.87, what is his final price when he purchases 3 cans?  
A. \$0.62    B. \$0.32    C. \$2.36    D. \$2.06

6-6

## Solving the Dollar Amount of a Markdown

When a store offers a sale, they sell items at a cost lower than its normal selling price. The **markdown**, or discount, is the amount of money that you save by purchasing a product at the sale price.

**Regular Selling Price – Sale Price = Markdown**

The **markdown rate**, or discount rate, is expressed as a percentage of the item's regular selling price.

**Markdown = Regular Selling Price × Markdown Rate**

### Example

**Find the markdown.**

Electronics World had a sale offering 25 percent off all DVD players. If Lucas Ingles bought a DVD player with a regular selling price of \$199, how much is the markdown?

Find the markdown.

**Regular Selling Price × Markdown Rate = Markdown**

$\$199.00 \times 0.25 = \$49.75$  **markdown**

### Practice

**Find the markdown.**

1. A loaf of bread is reduced to \$1.25 for quick sale. If the regular selling price is \$1.98, what is the markdown?
2. Smart Mart has reduced its beach towels from \$9.95 to \$7.70. What is the markdown?
3. A clothing store is having a summer clearance, and all swimsuits are 60 percent off. If the original selling price of your new bathing suit was \$32.75, what is the markdown?
4. A department store is offering a 20 percent sale on all power tools. If the usual selling price for an electric saw is \$429, what is the markdown?
5. Yogurt cups have a regular selling price of \$0.55 each. The grocery store is having a sale and all yogurt cups are 3 for \$1. What is the markdown on a single cup if you take advantage of the sale?
6. A case of soda normally costs \$5.19. Throughout the summer, Smart Mart is offering 3 cases of soda for \$12. What is the markdown on a single case if you take advantage of the special?
7. A tube of toothpaste normally costs \$2.75. The pharmacy has it on sale for \$2.24. What is the markdown?
8. **Standardized Test Practice** Sportsmart is having a sale. All sporting goods are 15 percent off, and all apparel is 20 percent off. Pete Dreger buys a baseball bat that regularly sells for \$19.49 and a sweatshirt that normally costs \$32.00. What is the combined markdown on his purchases?  
 A. \$2.92    B. \$6.40    C. \$9.32    D. \$10.30

## 6-7

## Computing the Sale Price

Once you know the markdown or the markdown rate on an item, you can calculate the **sale price**. The regular selling price of an item is 100 percent. The percent paid, then, is 100 percent minus the percent off.

**Sale Price = Regular Selling Price – Markdown** OR

**Sale Price = Percent Paid × Regular Selling Price**

**Percent Paid = 100% – Percent Off**

## Example

**Find the sale price.**

Electronics World had a sale offering 15 percent off all equipment. If Lucas Ingles bought a DVD player during the sale with a regular selling price of \$199, what did he pay?

1. Find the markdown.

**Regular Selling Price × Markdown Rate = Markdown**

$$\$199 \times 0.15 = \$29.85 \text{ markdown}$$

2. Find the sale price.

**Regular Selling Price – Markdown = Sale Price**

$$\$199 - \$29.85 = \$169.15 \text{ sale price}$$

## Practice

**Find the sale price, markdown, or percentage.**

1. A store is having a white sale, and all bedding is reduced by 30 percent. If a sheet set normally costs \$36.44, what is the sale price?
2. The regular price of a gas grill is \$215.48. The markdown is 35 percent. What is the sale price?
3. Work pants normally sell for \$42.50. If the store is having a 25 percent off sale, what is the sale price of the pants?
4. A department store is offering a 20 percent sale on all power tools. If the usual selling price for an electric drill is \$429, what is the sale price?
5. A pack of printer paper that normally sells for \$4.39 is on sale at Supply Store for \$3.29. What is the markdown, and what percentage of the regular price does this markdown represent?
6. A shower curtain that normally sells for \$21.85 is on sale for \$16.48. What percentage are you saving by buying the shower curtain on sale?
7. The bowling alley offers a 10 percent discount if you bowl 3 or more games. Normally a game costs \$2.85. How much does it cost you to bowl 3 games?
8. **Standardized Test Practice** Smart Mart is having a “buy more, save more” sale. If your total purchases are \$50 or less, you receive a 15 percent discount. If your purchases total between \$50 and \$100, you receive a 20 percent discount. If your purchases exceed \$100, you receive 25 percent off. You purchase a pair of running shoes that regularly cost \$46.58 and 2 pairs of socks that regularly cost \$2.50 each. What is your total sale price for the items?  
**A. \$41.72    B. \$43.84    C. \$41.26    D. \$38.69**

## 6 Chapter Review

### ***Getting the Most Vacation for Your Dollar***

It's time to start planning your summer vacation, but what can you actually afford? You know there are some hidden costs in those advertised prices, but there are also some great deals available if you know where to find them.

1. A 7-day cruise is being advertised for \$849. What is the unit price per day?
2. The 7-day cruise costs \$849, but there is also a 5-day cruise advertised for \$669. Based solely on cost, which is the better buy?
3. You decide that the 7-day cruise offers more value for your money, but forgot to include the cost of tax. If your sales tax rate is 6 percent, what is the sales tax on your \$849 vacation?
4. What is your total purchase price with sales tax?
5. Vacation Cruise Lines is offering a last minute markdown on all of its cruises. If the sale price is 20 percent off the regular selling price of \$849, what is the markdown?
6. What is the sale price of your 7-day cruise after the markdown?
7. You're flipping through a travel brochure, and you find a coupon for \$50 off any Vacation Cruise. It can be combined with other offers. What is the final price of your cruise after the markdown and the coupon?
8. Time to add the sales tax back in. Tax must be paid on the amount of the cruise *before* any discounts. Using the sales tax value you computed in Problem 3, what is the final price of your cruise with sales tax?