

# Lesson Notes 7.7

NAME \_\_\_\_\_

Module 7    Ratio, Proportion, and Percent  
Lesson 7    Problem Solving with Percents

## Lesson Objectives

- Solve real-world percent problems including percent of increase and decrease with or without technology.
- Solve real-world percent problems involving simple and compound interest with or without technology.

## Subtopic 1    Percent of Increase and Percent of Decrease

$$\text{percent of change} = \frac{\text{change}}{\text{original amount}}$$

**1** ★ Kathy used 240 cell phone minutes last month. This month, she used 600 minutes. What was the percent of change from last month to this month?

**2** ★ The original price of a camera is \$300. The price decreased 20%. What is the new price of the camera?

## Subtopic 2 Simple Interest

Interest is the \_\_\_\_\_ for the use of money.

- When you \_\_\_\_\_ money, the bank pays you interest.
- If you \_\_\_\_\_ money, you have to pay the bank interest.

Simple Interest

$$I = Prt$$

*I*: Interest

*P*: \_\_\_\_\_

*r*: rate

*t*: \_\_\_\_\_

- 3** Lori saved \$400 for three years at a rate of 4%. Find the amount of simple interest and the total amount in the account.

## Subtopic 3 Compound Interest

Compound interest is interest calculated on both the principal and any \_\_\_\_\_ already added on.

Annually: \_\_\_\_\_ a year

Semiannually: \_\_\_\_\_ a year

\_\_\_\_\_ : four times a year

\_\_\_\_\_ : twelve times a year

- 4** Five-thousand dollars was deposited at a rate of 6%, compounded annually. Find the amount of money after two years.