

PREVIEW

What's the chapter about?

Chapter 3 is about **solving linear equations**. In Chapter 3, you'll learn

- techniques for solving linear equations systematically.
- ways to apply ratios, rates, percents, and problem solving strategies.

KEY VOCABULARY

► **Review**

- solution of an equation, p. 24
- opposites, p. 65
- distributive property, p. 100
- reciprocal, p. 108

► **New**

- equivalent equations, p. 132
- inverse operations, p. 132
- linear equation in one variable, p. 133
- ratio of a to b , p. 140
- identity, p. 155
- formula, p. 174
- rate of a per b , p. 180

PREPARE

Are you ready for the chapter?

SKILL REVIEW Do these exercises to review key skills that you'll apply in this chapter. See the given **reference page** if there is something you don't understand.

Find the percent of the number. (Skills Review, p. 786)

1. 11% of 650 2. 41% of 71.5 3. 6% of 250 4. 4.2% of 60

Check whether the given number is a solution of the equation.
(Review Examples 1 and 2, p. 24)

5. $9 - x = 7$; -2 6. $-11 = -4y + 1$; 3 7. $4 - 3w + 5w = 2$; -1

Use the distributive property to rewrite the expression without parentheses. (Review Examples 2 and 3, p. 101)

8. $3(4r + 6)$ 9. $-6(3 - 5z)$ 10. $(-x + 7)(-3)$

Find the terms of the expression. Then simplify the expression by combining like terms. (Review Example 3, p. 80 and Example 5, p. 102)

11. $-2 + 3x - 7$ 12. $4a + 2 - a$ 13. $1 - 3x + 4y + 3x$

STUDENT HELP

► **Study Tip**

"Student Help" boxes throughout the chapter give you study tips and tell you where to look for extra help in this book and on the Internet.

STUDY STRATEGY

Here's a study strategy!

Learning to Use Formulas

Be sure you know what each variable means in a formula. To study for tests, it is helpful to write a formula on one side of a 3×5 card and a sample problem using that formula on the other side. There is also a helpful Table of Formulas on page 813.