Study Guide

What's the chapter about?

Chapter 4 is about **graphing linear equations**. In Chapter 4, you'll learn

- how to graph linear equations.
- two ways to graph linear equations quickly.
- how to tell whether an equation or a graph represents a function.

KEY VOCABULARY

▶ **Review**

- variable expression, p. 3
- solution of an equation, p. 24
- function, p. 46
- linear equation, p. 133

▶ **New**

- coordinate plane, p. 203
- scatter plot, p. 204
- graph of a linear equation, p. 210
- *x*-intercept, p. 218

- *y*-intercept, p. 218
- slope, p. 226
- rate of change, p. 229
- slope-intercept form, p. 241
- function notation, p. 257

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.

Rewrite as a decimal and as a fraction in lowest terms. (Skills Review, p. 784)

1. 50% **2.** 75% **3.** 1% **4.** 20%

Use the function $y = 5x + 70$, where $x \geq 0$. (Review Examples 1 and 2, pp. 46–47)

5. For several inputs x, use the function to calculate an output y.

6. Represent the data with a line graph.

7. Describe the domain and range of the function.

Evaluate the expression for the given values of the variables.
(Review Example 3, p. 109)

8. $\dfrac{x - y}{2}$ when $x = -3$ and $y = -1$ **9.** $\dfrac{x + 2y}{x}$ when $x = 6$ and $y = 3$

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.

Here's a study strategy!

Getting Your Questions Answered

Each day after you finish your math homework, write a list of questions about things you don't understand. Ask your teacher or another student to answer your questions and write the explanations in your notebook.