Study Guide

What's the chapter about?

Chapter 2 is about **linear equations and functions**. In Chapter 2 you'll learn

- how to graph ordered pairs, relations, functions, linear equations and inequalities in two variables, piecewise functions, and absolute value functions.

- how to write equations of lines.

- how to solve real-life problems using graphs and equations.

KEY VOCABULARY

▶ **Review**
- graph, p. 3
- linear equation, p. 19
- solution, p. 19
- linear inequality in one variable, p. 41
- absolute value, p. 50

▶ **New**
- relation, p. 67
- function, p. 67
- ordered pair, p. 67
- coordinate plane, p. 67
- linear function, p. 69
- slope, p. 75

- slope-intercept form, p. 82
- standard form, p. 84
- direct variation, p. 94
- scatter plot, p. 100
- linear inequality in two variables, p. 108
- piecewise function, p. 114

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.

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.

Evaluate the expression for the given values of x and y. (Review Example 3, p. 12)

1. $\frac{y-7}{x-3}$; $x = 2, y = 5$ **2.** $\frac{5-y}{6-x}$; $x = 4, y = 1$ **3.** $\frac{8-y}{3-x}$; $x = -1, y = -4$

Solve the equation for y. (Review Example 1, p. 26)

4. $3x + y = 4$ **5.** $x - 2y = 10$ **6.** $5x + 6y = -60$

Solve the inequality. (Review Examples 1 and 2, p. 42)

7. $2x + 9 < 18$ **8.** $6 - 0.5y \le 19$ **9.** $2x + 3 > 6x - 7$

Here's a study strategy!

Skills File

In a notebook, make a file of the skills you learn throughout this course. On the left side of the paper, write an important skill and the lesson that it comes from. On the right side of the paper, give an example of the skill in use. Go back now and make a skills file for Chapter 1. Then continue with Chapter 2.