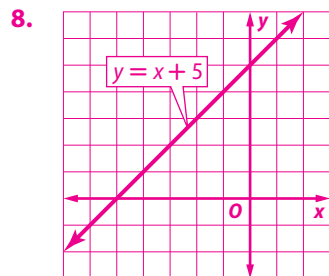


Lesson-by-Lesson Review

If the given examples are not sufficient to review the topics covered by the questions, remind students that the page references tell them where to review that topic in their textbook.

Additional Answers

- 3.
4. Sample answer: $(-1, -4), (0, 0), (1, 4), (2, 8)$
- 5.
6. Sample answer: $(-1, 0), (0, -1), (1, -2), (2, -3)$
- 7.



9.



Chapter Review



Interactive Study Guide

See pages 211–214 for:

- Vocabulary Check
- Key Concept Check
- Problem Solving
- Reflect

Lesson-by-Lesson Review

Lesson 9-1 Functions (pp. 384–389)

- 1.
2. Use the table below that shows the cost of gas in different years. Is the relation a function? Explain.

Year	2002	2004	2006
Cost (\$)	1.36	1.82	2.26

Yes; each domain value is paired with only one range value.

Example 1

Determine whether the relation shown in the table below is a function. Explain.

x	9	11	13	17	21
y	7	3	-1	-5	-7

Yes; it is a function since each domain value is paired with only one range value.

Lesson 9-2 Representing Linear Functions (pp. 390–395)

Find four solutions of each equation. Write the solution as ordered pairs. **3–9. See margin.**

3. $y = -5x$
4. $y = 4x$
5. $y = x + 9$
6. $x + y = -1$

Graph each equation.

7. $y = -2x$
8. $y = x + 5$

9. Each small smoothie x costs \$1.50, and each large smoothie y costs \$3. Find two solutions of $1.5x + 3y = 12$ to determine how many of each type of smoothie Lisa can buy with \$12.

Example 2

Find four solutions of $y = -x + 1$. Write the solutions as ordered pairs.

Choose four values for x and then solve for y .

x	$y = -x + 1$	y	(x, y)
-1	$y = -(-1) + 1$	2	$(-1, 2)$
0	$y = -0 + 1$	1	$(0, 1)$
1	$y = -1 + 1$	0	$(1, 0)$
2	$y = -2 + 1$	-1	$(2, -1)$

Four solutions: $(-1, 2), (0, 1), (1, 0),$ and $(2, -1)$.

Lesson 9-3 Constant Rate of Change and Slope (pp. 396–402)

10. Find the constant rate of change between the quantities in the table below. **\$7.75 per hour**

Time (h)	0	4	8
Money Earned (\$)	0	31	62

Find the slope of the line that passes through each pair of points.

11. $F(0, 1), G(6, 4)$
12. $A(-3, 7), G(5, -1)$ **-1**

13. A lizard is crawling up a hill that rises 5 feet for every horizontal change of 30 feet. Find the slope.

Example 3

Find the constant rate of change in the water level.

Time (min)	0	4	8
Water Level (ft)	5	4	3

rate of change = $\frac{\text{change in water level}}{\text{change in time}}$

$$= \frac{5 \text{ ft} - 4 \text{ ft}}{0 \text{ min} - 4 \text{ min}}$$

$$= \frac{1 \text{ ft}}{-4 \text{ min}} \text{ or } -\frac{1}{4} \text{ ft/min}$$

The rate of change is $-\frac{1}{4}$ feet per minute.