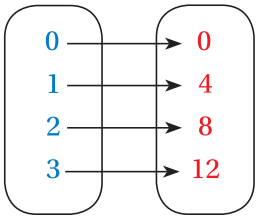
7.2 Practice

Go to **BigIdeasMath.com** to get HELP with solving the exercises.

Review & Refresh

Determine whether the relation is a function.

1.



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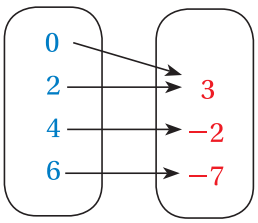

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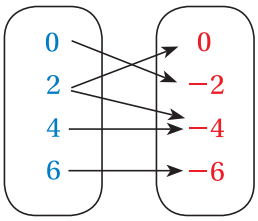
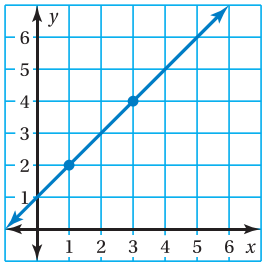


Find the slope of the line.

4.



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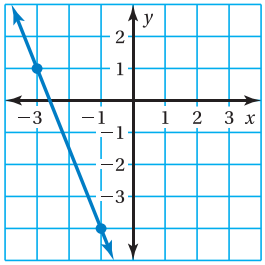

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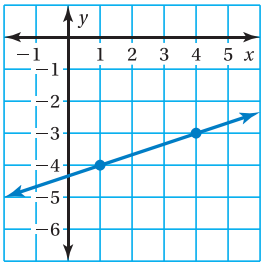


Concepts, Skills, & Problem Solving

USING A GRAPH **Use a graph to test the truth of the statement. If the statement is true, write an equation that shows how to obtain one measurement from the other measurement.** (See Exploration 2, p. 281.)

7. "You can find the weight of a cell phone in ounces if you know its screen size in inches."

Screen Size (inches), x	4	4.7	5	5.5
Weight (ounces), y	4	4.8	4.8	6.4

8. "You can find the age of a child in years if you know the age of the child in months."

Age (months), x	9	12	15	24
Age (years), y	0.75	1	1.25	2

WRITING FUNCTION RULES **Write a function rule for the statement.**

9. The output is half of the input.

10. The output is eleven more than the input.

11. The output is three less than the input.

12. The output is the cube of the input.

13. The output is six times the input.

14. The output is one more than twice the input.

EVALUATING A FUNCTION **Find the value of y for the given value of x.**

15. $y = x + 5;\ x = 3$ **16.** $y = 7x;\ x = -5$ **17.** $y = 1 - 2x;\ x = 9$

18. $y = 3x + 2;\ x = 0.5$ **19.** $y = 2x^3;\ x = 3$ **20.** $y = \frac{x}{2} + 9;\ x = -12$

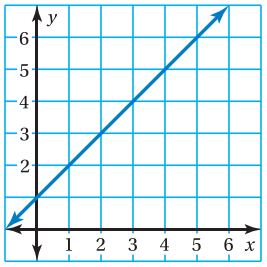
GRAPHING A FUNCTION **Graph the function.**

21. $y = x + 4$ **22.** $y = 2x$ **23.** $y = -5x + 3$

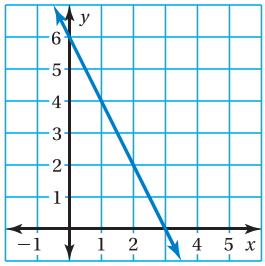
24. $y = \frac{x}{4}$ **25.** $y = \frac{3}{2}x + 1$ **26.** $y = 1 + 0.5x$

MATCHING **Match the graph with the function it represents.**

27.



28.



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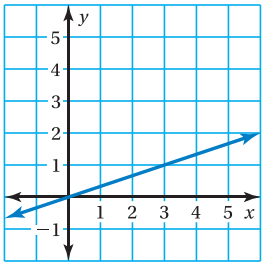
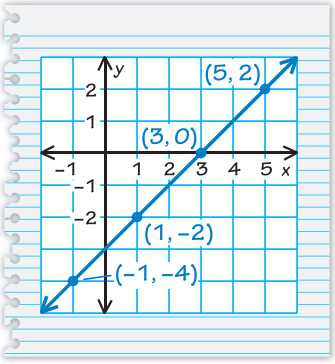


A. $y = \frac{x}{3}$ **B.** $y = x + 1$ **C.** $y = -2x + 6$

30. **MP YOU BE THE TEACHER** Your friend graphs the function represented by the input-output table. Is your friend correct? Explain your reasoning.

Input, x	-4	-2	0	2
Output, y	-1	1	3	5



31. **MODELING REAL LIFE** A dolphin eats 30 pounds of fish per day.

a. Write and graph a function that relates the number p of pounds of fish that a dolphin eats in d days.

b. How many total pounds of fish does a dolphin eat in 30 days?

32. **MP MODELING REAL LIFE** You fill a fish tank with 55 gallons of water on Saturday. The water evaporates at a rate of 1.5 gallons per day. You plan to add water when the tank reaches 49 gallons. When will you add water? Justify your answer.

USING AN EQUATION **Find the value of x for the given value of y.**

33. $y = 5x - 7;\ y = -22$ **34.** $y = 9 - 7x;\ y = 37$ **35.** $y = \frac{x}{4} - 7;\ y = 2$