Name _____ Date _____

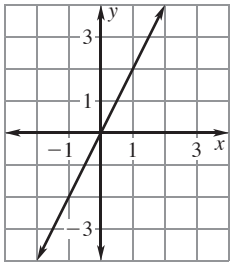
LESSON 3.6

Practice A

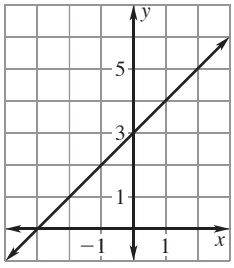
For use with the lesson "Model Direct Variation"

Tell whether the graph represents direct variation. If so, identify the constant of variation.

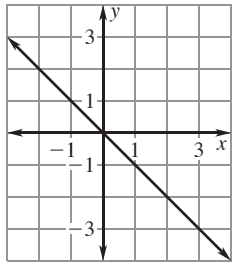
1. $y = 2x$



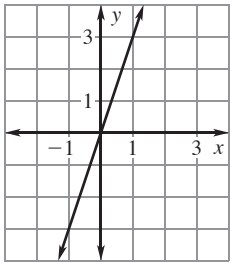
2. $y = x + 3$



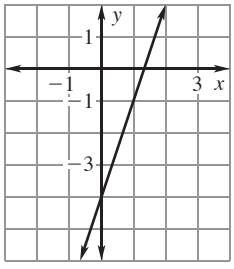
3. $y = -x$



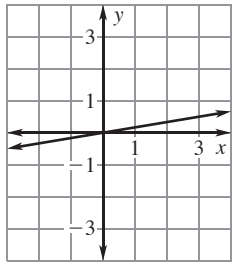
4. $2y = 6x$



5. $y = 3x - 4$

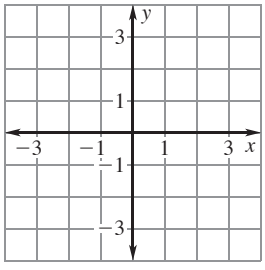


6. $6y = x$

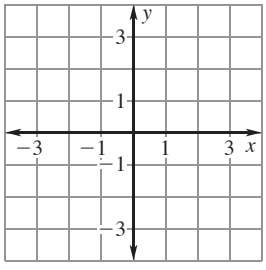


Graph the direct variation equation.

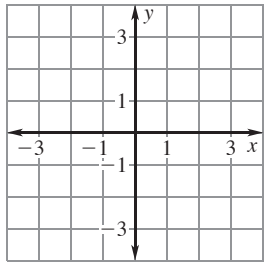
7. $y = 4x$



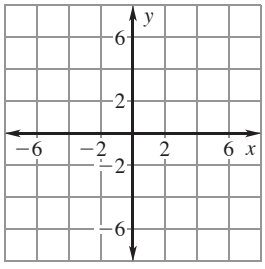
8. $y = -2x$



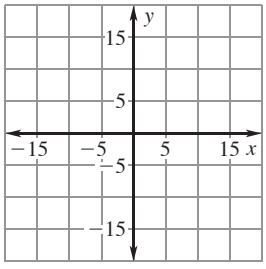
9. $y = \frac{1}{3}x$



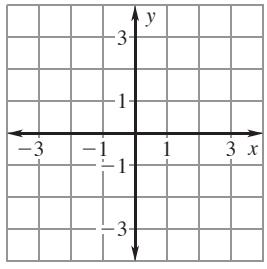
10. $y = -7x$



11. $y = 10x$



12. $y = \frac{1}{4}x$



Name _____ Date _____

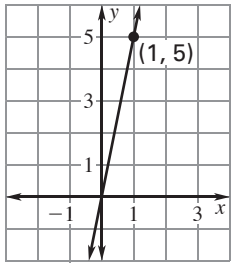
LESSON 3.6

Practice A *continued*

For use with the lesson "Model Direct Variation"

The graph of a direct variation equation is shown. Write the direct variation equation. Then find the value of y when $x = 10$.

13.



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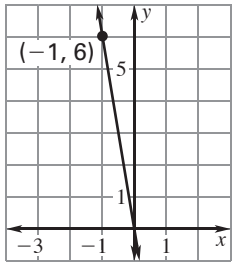
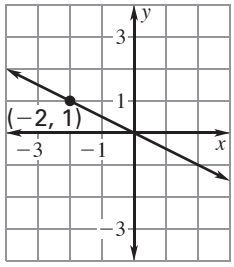


15.



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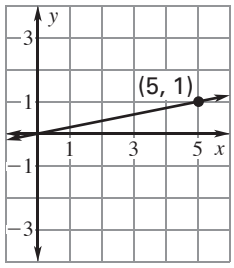

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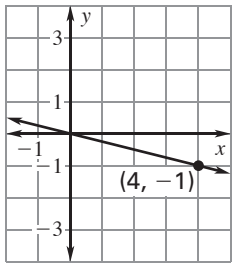
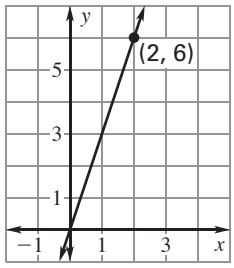


18.



Given that y varies directly with x, use the specified values to write a direct variation equation that relates x and y.

19. $x = 2, y = 4$

20. $x = 3, y = 21$

21. $x = 20, y = -5$

22. $x = 3, y = -10$

23. $x = 15, y = 6$

24. $x = 20, y = 2$

25. $x = 30, y = -9$

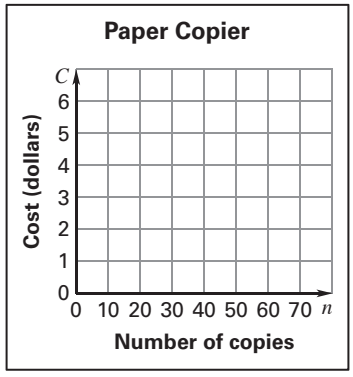
26. $x = -8, y = -1$

27. $x = -2, y = -30$

28. Paper Copier A library has a copier that you can use to make copies of book pages. The cost C (in dollars) varies directly with the number of copies made n. It costs \$.08 to make one copy.

a. Write a direct variation equation that relates C and n.

b. Graph the direct variation equation.



29. Shower Head The amount w of water (in gallons) used by a shower head varies directly with the number m of minutes the shower is run. For every minute of a shower, 2.5 gallons of water is used.

a. Write a direct variation equation that relates w and m.

b. How many gallons of water do you use if you take a 5-minute shower?

30. Circumference and Radius The circumference C of a circle varies directly with the length of the radius r. When the circumference is 10π, the radius is 5.

a. Write a direct variation equation that relates C and r.

b. What is the circumference of a circle with a radius of 13 inches? Use 3.14 for π.