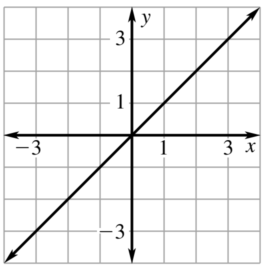
NAME ______________________ DATE __________

Practice A

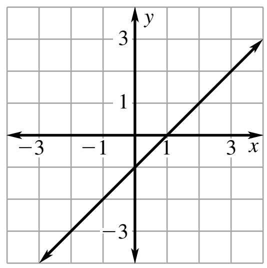
For use with pages 234–239

Determine if the graph represents a direct variation model. If yes, find the constant of variation and the slope.

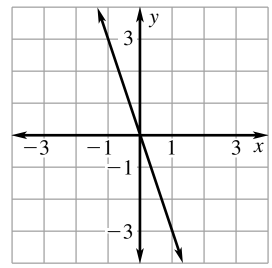
1. $y = x$



2. $y = x - 1$



3. $y = -3x$



Graph the equation. Find the constant of variation and the slope of the direct variation model.

4. $y = 2x$

5. $y = 3x$

6. $y = 4x$

7. $y = -x$

8. $y = -2x$

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

The variables *x* and *y* vary directly. Use the given values to write an equation that relates *x* and *y*.

10. $x = 1, y = 2$

11. $x = 1, y = 3$

12. $x = 2, y = 4$

13. $x = 3, y = 12$

14. $x = 2, y = -2$

15. $x = -3, y = 15$

16. $x = -4, y = -28$

17. $x = 2, y = 1$

18. $x = 4, y = 1$

In Exercises 19 and 20, find an equation that relates the two variables.

19. ***Circumference and Radius*** The circumference C of a circle varies directly with the length of the radius r. When the circumference is 8π, the radius is 4.

20. ***Showers*** The gallons G of water used to take a shower varies directly with the number of minutes M in the shower. A 6 minute shower uses 36 gallons of water.

Salary **Use the following information.**

You work a different number of hours each day. The table shows your total pay p and the number of hours h you worked.

21. Complete the table by finding the ratio of your total pay each day to the number of hours you worked that day.

Total pay, p	\$20	\$15	\$30	\$25
Hours worked, h	4	3	6	5
Ratio				

22. Write the model that relates the variables p and h.

23. If you work 8 hours on the fifth day, what will your total pay be?