

5-2

Practice

Form K

Direct Variation

Determine whether each equation represents a direct variation. If it does, find the constant of variation.

1. $3y + 2 = 2x$

2. $2x - 5y = 0$

3. $-7x = -56y$

4. $-2 + 4y + 2 = 8x$

Suppose y varies directly with x . Write a direct variation equation that relates x and y . Then find the value of y when $x = 8$.

5. $y = 4$ when $x = 8$

6. $y = 15$ when $x = 5$

7. $y = 3$ when $x = 8$

8. $y = 7.92$ when $x = 2.2$

Graph each direct variation equation.

9. $y = 3x$

10. $y = -x$

11. $y = \frac{2}{3}x$

12. The perimeter of a square varies directly with the length of one side. What is an equation that relates the perimeter p and length l of the side? What is the graph of the equation?

5-2**Practice** (continued)

Form K

Direct Variation

For the data in each table, tell whether y varies directly with x . If it does, write an equation for the direct variation.

13.

x	y
4	5.4
2	2.7
-2	-2.7

14.

x	y
6	-6.9
10	-11.5
-7	-8.05

Write a direct variation equation that relates x and y . Then graph the equation.

15. $y = -21$ when $x = 7$

16. $y = \frac{15}{2}$ when $x = -5$

Tell whether the two quantities vary directly. Explain your reasoning.

17. Sara makes \$3.50 more per hour than Pasco.

18. The cafeteria provides three meals per day.

19. Jasmine scores 10 points per game.

20. **Reasoning** How can you tell, by examining the graph, if a line represents a direct variation?