

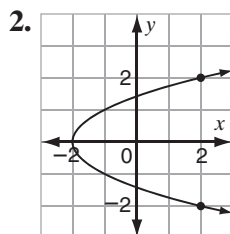
Practice Chapter 5 Test

Name _____ Date _____

Tell whether each relation represents a linear function. Find the slope of all linear functions.

1.

x	y
-2	3
-1	4
0	5
1	6
2	7



3. $y = \frac{7}{8}x + 9$

Find the slope of the line that connects the given points. Describe the line.

4. (3, 9) and (12, 1)

5. (-2, 7) and (4, 10)

Explain whether each of the following represents a direct variation. If so, state the constant of variation.

6. $y + 15x = 0$

7. $4x + 7y = -4$

8. $4y + 2x = 0$

Write an equation in slope-intercept form for the line with the given slope and y-intercept.

9. slope: 7; y-intercept: -19

10. slope: $-\frac{4}{5}$; y-intercept: $\frac{2}{3}$

11. slope: 9.3; y-intercept: -11.25

Identify the slope and y-intercept of the line whose equation is given. Graph the line on a separate sheet of paper.

12. $y = -7x + 3$

13. $y = 5x - 2$

14. $7x + 5y = -20$

15. $2x - 6y = -30$

Write an equation in point-slope form of a line that passes through the given points.

16. (1, 7) and (-2, 10)

17. (2, -5) and (5, -1)

18. (-9, -5) and (-7, -6)





Write each equation in the form given.

19. $2x + 6y = 1$; slope-intercept form

20. $y - 2 = \frac{1}{4}(x + 8)$; standard form

Write an equation in slope-intercept form for the line that is described.

21. perpendicular to $2x + y = -5$
and passing through $(1, 1)$

22. parallel to $4x + 3y = 5$
with a y-intercept of -2

Graph each linear inequality on a separate sheet of paper. Describe the solution set.

23. $x + y < -3$

24. $5x \leq 15$

25. $-2y \leq 16$

26. $6x - y < 2$

Graph each absolute-value function on grid paper. Identify the vertex, axis of symmetry, x- and y-intercepts, domain, and range. Tell whether the graph opens up or down.

27. $y = |x + 9|$

28. $y = -|x| - 4$

29. $y = |x - 3| + 6$

Solve. Show your work.

30. The cost of a spice varies directly with its weight. If 5.2 ounces of spice cost \$2.90, find the cost of 7.8 ounces of the spice.

31. What is the equation of a line that is parallel to the line that passes through the points $(3, 7)$ and $(3, -10)$ and that contains the point $(9, 7)$?

Tell About It

Explain how you solve the problem. Show all your work.

32. How can you determine which of the points below are solutions to the inequality $5y < 3x - 8$? $(9, -4)$, $(-1, 6)$, $(-1, -20)$, and $(2, 15)$

