- 1. Find the slope and the *y*-intercept for the graph of the line with the equation $y = -\frac{1}{2}x 3$.
- 2. Find the slope and the y-intercept for the graph of the line with the equation $y = \frac{7}{8}x + 5$.
- 3. Find the slope and the *y*-intercept for the graph of the line with the equation $y = -\frac{4}{9}x + 9$.
- 4. Find the slope and the *y*-intercept for the graph of the line with the equation y = 3x + 4.
- 5. Find the slope and the *y*-intercept for the graph of the line with the equation $y = -\frac{4}{3}x 8$.

Without graphing, determine the slope and the *y*-intercept:

- 6. y = 5x + 5
- 7. y = -5x 6
- 8. y = -x 4
- 9. y = -2x 3
- 10. y = 3x 5

Write an equation in slope-intercept form for the line graphed.



Write an equation in slope-intercept form for the line graphed.



Write an equation in slope-intercept form for the line that contains the given points.

16. b-8, 3g and b-5, 7g
17. b-4, 7g and b-3, 9g
18. b-4, 6g and b-2, 9g
19. b-6, 3g and b-4, 6g
20. b-3, 4g and b-1, 7g
21. b-8, 6g and b-6, 9g

Write an equation in slope-intercept form for the line that contains the given points.

- 22. **b**-7, 3**g** and **b**-3, 8**g**
- 23. **b**-5, 4**g** and **b**-2, 8**g**
- 24. **b**-7, 2**g** and **b**-4, 6**g**
- 25. b-3, 5g and b-1, 8g
- 26. An editor gets a \$710 raise each year. Her starting salary is \$57,500. Write a linear equation which models her income in terms of how many years she has worked at the company.
- 27. A family of five buys a bag of jelly beans. Each member eats exactly 10 jelly beans per day. The bag starts with 395 beans in it. Write a linear equation which models the number of jelly beans left in the bag in terms of the days that have passed.
- 28. A man decides to take out \$180 per month from his savings account. He has \$10,758 in his account at the beginning. Write a linear equation which models the amount in the savings account in terms of the number of months he withdraws money.
- 29. An apartment lease states that the rent will go up \$70 each year. The rent for the first year is \$820. Write a linear equation which models the rent in terms of the number of years the tenants have lived there.
- 30. An editor gets a \$1,490 raise each year. Her starting salary is \$27,600. Write a linear equation which models her income in terms of how many years she has worked at the company.
- 31. Which is the slope of a line that is perpendicular to the graph of $y = -2x \frac{1}{8}$?
 - [A] $\frac{1}{2}$ [B] 2 [C] $-\frac{1}{2}$ [D] -2

32. Which is the slope of a line that is perpendicular to the graph of $y = x - \frac{3}{4}$? [D] –1 [A] 1 [B] 0 [C] undefined 33. Which is the slope of a line that is perpendicular to the graph of $y = -\frac{1}{5}x - 7$? [D] $\frac{1}{5}$ $[A] -\frac{1}{5}$ [C] 5 [B] -5 34. Which is the slope of a line that is perpendicular to the graph of $y = x + \frac{1}{3}$? [A] 1 [B] 0 [C] -1 [D] undefined 35. Which is the slope of a line that is perpendicular to the graph of $y = \frac{1}{3}x - 2$? [B] $-\frac{1}{3}$ [A] $\frac{1}{3}$ [C] 3 [D] -3 36. Which is the slope of a line parallel to the line 5x + y = 9? [B] $\frac{1}{5}$ $[C] -\frac{1}{5}$ [A] -5 [D] 5 37. Which is the slope of a line parallel to the line 3x - 2y = 8? [A] $\frac{3}{2}$ [B] $-\frac{3}{2}$ [C] $-\frac{2}{3}$ [D] $\frac{2}{3}$ 38. Which is the slope of a line parallel to the line 2x - 3y = 6? [B] $-\frac{3}{2}$ [A] $-\frac{2}{2}$ [C] $\frac{3}{2}$ [D] $\frac{2}{3}$ 39. Which is the slope of a line parallel to the line 4x + 2y = 7? [A] $\frac{1}{2}$ $[D] -\frac{1}{2}$ [B] -2 [C] 2

40. Which is the slope of a line parallel to the line 3x + 4y = 5?

[A]
$$-\frac{4}{3}$$
 [B] $\frac{3}{4}$ [C] $\frac{4}{3}$ [D] $-\frac{3}{4}$

- 41. What is the equation of the line perpendicular to the line with zero slope passing through the point $b_{8, -6}$?
- 42. What is the equation of the line perpendicular to the line with undefined slope passing through the point [1, -7, -8]?
- 43. What is the equation of the line perpendicular to the line with undefined slope passing through the point [-6, 5]?
- 44. What is the equation of the line perpendicular to the line with zero slope passing through the point b-2, -70?
- 45. What is the equation of the line perpendicular to the line with zero slope passing through the point [-9, 3]?
- 46. What is the equation of the line perpendicular to the line with undefined slope passing through the point [-5, 4]?
- 47. What is the equation of the line perpendicular to the line with zero slope passing through the point [-3, 9]?
- 48. What is the equation of the line perpendicular to the line with undefined slope passing through the point [4, -6]?
- 49. What is the equation of the line perpendicular to the line with undefined slope passing through the point [1, 7, 5]?
- 50. What is the equation of the line perpendicular to the line with zero slope passing through the point b_{6} , 70?

51. Find the slope of the line perpendicular to the line y = 3x - 5.

52. Find the slope of the line parallel to the line y = -6x - 3.

53. Find the slope of the line perpendicular to the line y = -5x - 4.

54. Find the slope of the line parallel to the line y = -3x + 2.

55. Find the slope of the line perpendicular to the line y = 4x - 7.

56. Find the slope of the line parallel to the line y = x + 3.

57. Find the slope of the line perpendicular to the line y = -2x + 3.

58. Find the slope of the line parallel to the line y = -2x - 7.

59. Find the slope of the line perpendicular to the line y = 7x - 6.

60. Find the slope of the line parallel to the line y = 5x - 2.