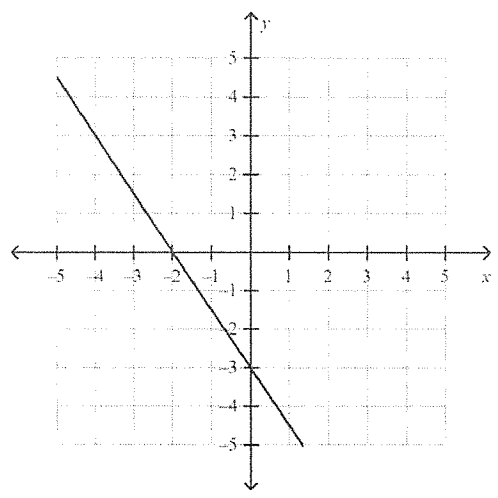


Unit 5 Mid-Chp Practice

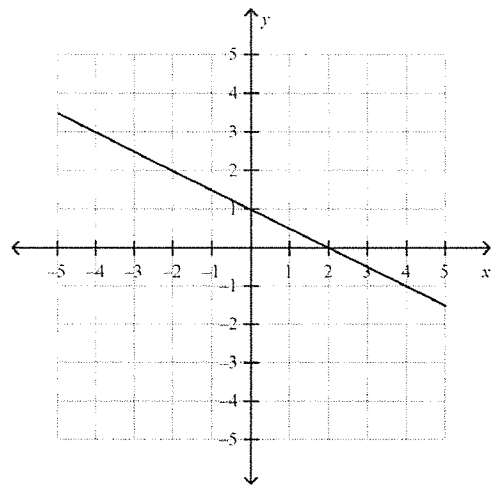
Find the slope of the line.

_____ 1.



- a. $\frac{2}{3}$ b. $-\frac{2}{3}$ c. $\frac{3}{2}$ d. $-\frac{3}{2}$

_____ 2.



- a. -2 b. $-\frac{1}{2}$ c. 2 d. $\frac{1}{2}$

What is the slope of the line that passes through the pair of points?

_____ 3. (2, 7), (8, 3)

- a. $-\frac{2}{3}$ b. $\frac{2}{3}$ c. $-\frac{3}{2}$ d. $\frac{3}{2}$

_____ 4. $(2, 4), (9, 2)$

a. $\frac{7}{2}$

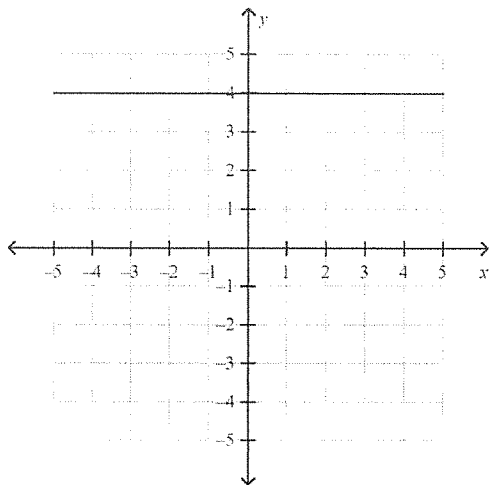
b. $\frac{2}{7}$

c. $-\frac{7}{2}$

d. $-\frac{2}{7}$

What is the slope of the line?

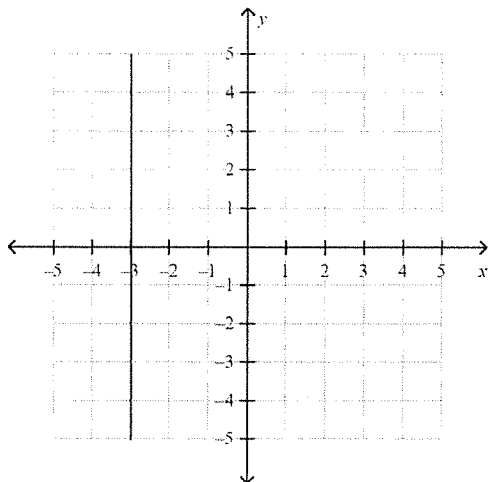
_____ 5.



a. undefined

b. 0

_____ 6.



a. 0

b. undefined

Does the equation represent a direct variation? If so, find the constant of variation.

_____ 7. $5x = 6y$

a. yes; $k = \frac{6}{5}$

b. no

c. yes; $k = \frac{5}{6}$

d. yes; $k = -\frac{5}{6}$

_____ 8. $5x = 2y$
a. yes; $k = \frac{5}{2}$ b. yes; $k = -\frac{5}{2}$ c. yes; $k = \frac{2}{5}$ d. no

_____ 9. $5x = 4y$
a. no b. yes; $k = \frac{4}{5}$ c. yes; $k = \frac{5}{4}$ d. yes; $k = -\frac{5}{4}$

What are the slope and y -intercept of the graph of the given equation?

_____ 10. $y = 9x + 3$
a. The slope is -9 and the y -intercept is -3 .
b. The slope is 9 and the y -intercept is 3 .
c. The slope is -3 and the y -intercept is 9 .
d. The slope is 3 and the y -intercept is 9 .

_____ 11. $y = 7x + 6$
a. The slope is 6 and the y -intercept is 7 .
b. The slope is -7 and the y -intercept is -6 .
c. The slope is 7 and the y -intercept is 6 .
d. The slope is -6 and the y -intercept is 7 .

Write an equation of a line with the given slope and y -intercept.

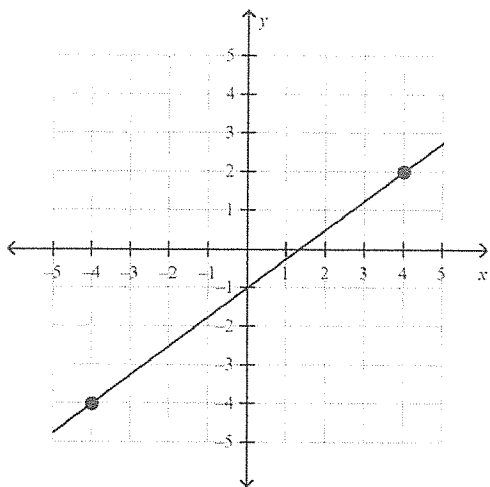
_____ 12. $m = -2, b = 8$
a. $y = 2x + 8$ c. $y = -2x - 8$
b. $y = 8x - 2$ d. $y = -2x + 8$

_____ 13. $m = -1, b = 6$
a. $y = -x - 6$ c. $y = -x + 6$
b. $y = x + 6$ d. $y = 6x - 1$

_____ 14. $m = -5, b = 7$
a. $y = 5x + 7$ c. $y = -5x - 7$
b. $y = -5x + 7$ d. $y = 7x - 5$

Write the slope-intercept form of the equation for the line.

_____ 15.



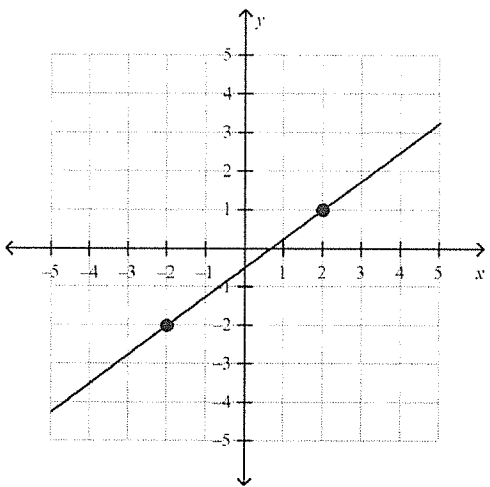
a. $y = -\frac{3}{4}x - 1$

b. $y = \frac{4}{3}x - 1$

c. $y = \frac{3}{4}x - 1$

d. $y = \frac{4}{3}x + 1$

_____ 16.



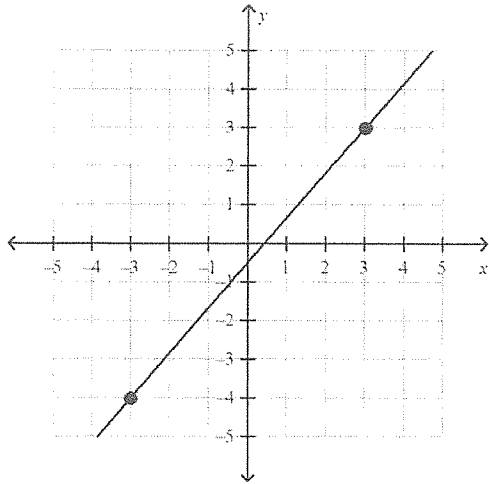
a. $y = \frac{4}{3}x + \frac{1}{2}$

b. $y = -\frac{3}{4}x - \frac{1}{2}$

c. $y = \frac{3}{4}x - \frac{1}{2}$

d. $y = \frac{4}{3}x - \frac{1}{2}$

_____ 17.



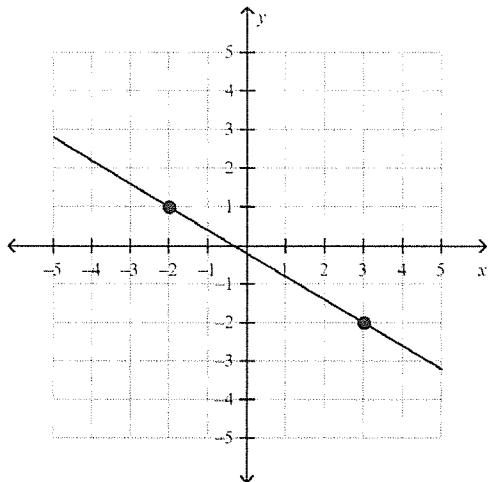
a. $y = \frac{6}{7}x - \frac{1}{2}$

b. $y = \frac{7}{6}x - \frac{1}{2}$

c. $y = \frac{6}{7}x + \frac{1}{2}$

d. $y = -\frac{7}{6}x - \frac{1}{2}$

_____ 18.



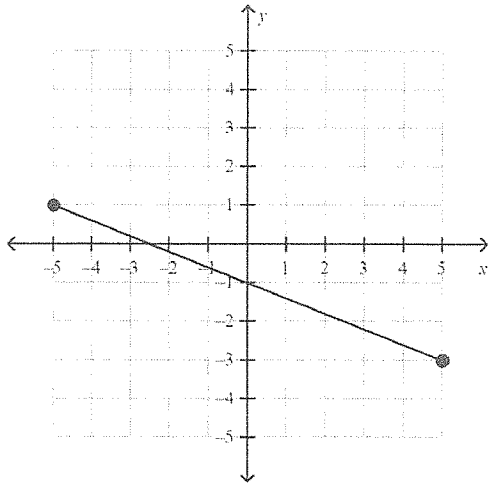
a. $y = -\frac{3}{5}x - \frac{1}{5}$

b. $y = \frac{3}{5}x + \frac{1}{5}$

c. $y = -\frac{5}{3}x + \frac{1}{5}$

d. $y = -\frac{1}{5}x + \frac{3}{5}$

_____ 19.



a. $y = -\frac{5}{2}x + 1$

c. $y = -x + \frac{2}{5}$

b. $y = \frac{2}{5}x + 1$

d. $y = -\frac{2}{5}x - 1$

What equation in slope intercept form represents the line that passes through the two points?

_____ 20. $(2, 4), (7, 2)$

a. $y = \frac{2}{5}x - \frac{24}{5}$

c. $y = \frac{5}{2}x + \frac{24}{5}$

b. $y = -\frac{5}{2}x - \frac{24}{5}$

d. $y = -\frac{2}{5}x + \frac{24}{5}$

_____ 21. $(2, 4), (6, 3)$

a. $y = \frac{1}{4}x - \frac{9}{2}$

c. $y = 4x + \frac{9}{2}$

b. $y = -4x - \frac{9}{2}$

d. $y = -\frac{1}{4}x + \frac{9}{2}$

_____ 22. $(2, 8), (8, 0)$

a. $y = \frac{4}{3}x - \frac{32}{3}$

c. $y = \frac{3}{4}x + \frac{32}{3}$

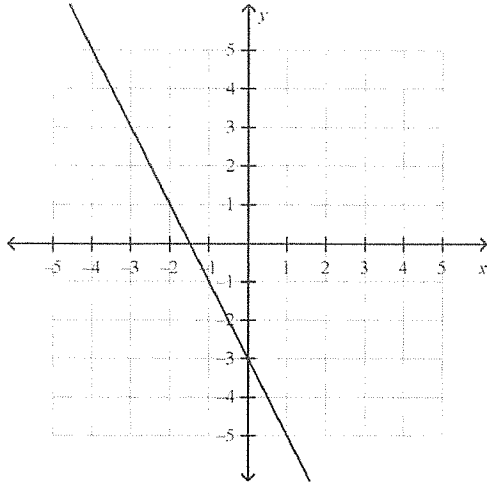
b. $y = -\frac{3}{4}x - \frac{32}{3}$

d. $y = -\frac{4}{3}x + \frac{32}{3}$

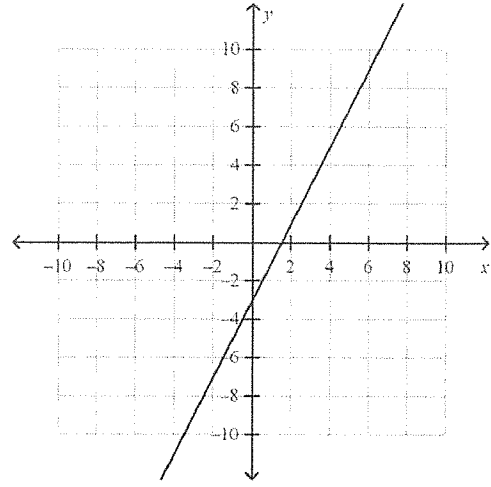
Graph the equation.

23. $y = 2x - 3$

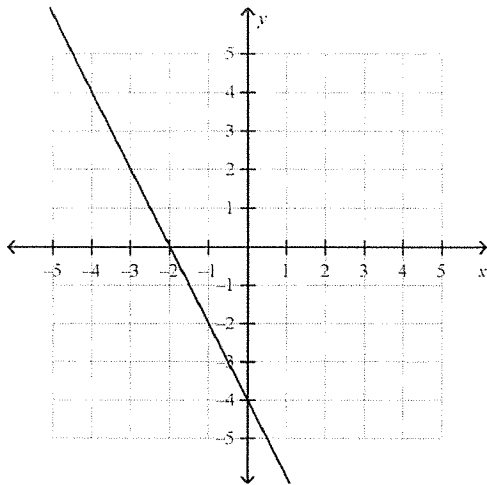
a.



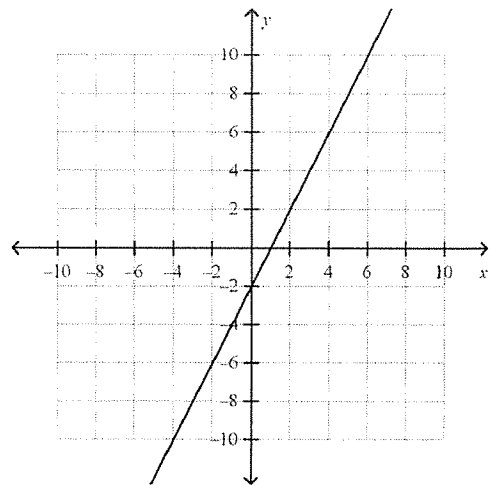
c.



b.

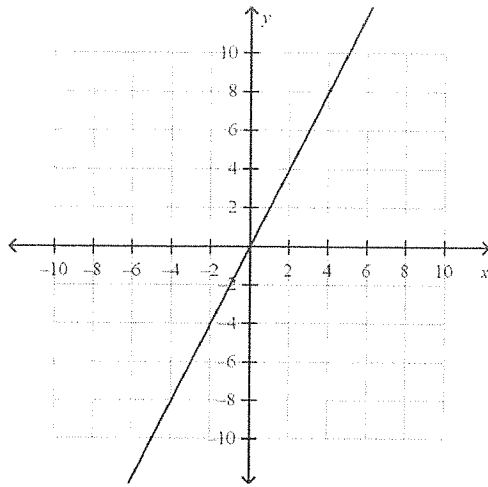


d.

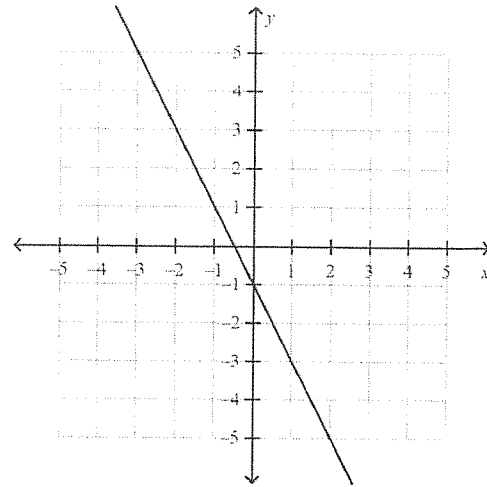


_____ 24. $y = 2x - 1$

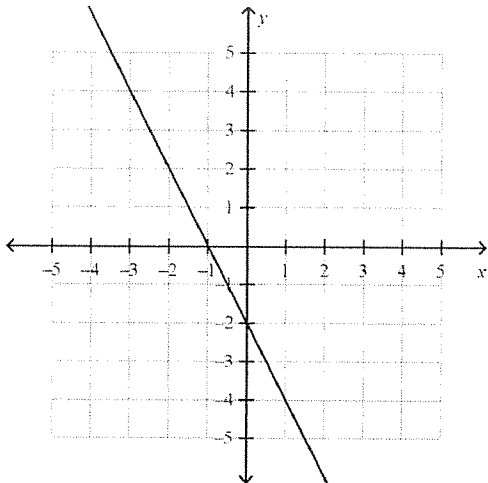
a.



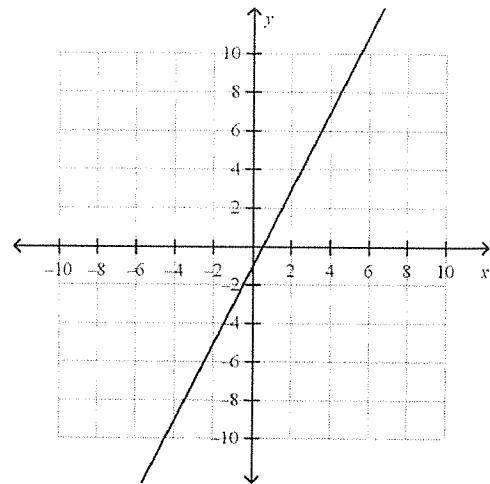
c.



b.



d.



Write an equation in point-slope form for the line through the given point with the given slope.

_____ 25. $(6, 1); m = -10$

a. $y - 1 = -10(x + 6)$

b. $y - 1 = -10(x - 6)$

c. $y + 1 = -10x + 6$

d. $y + 1 = -10(x - 6)$

_____ 26. $(-5, 4); m = 9$

a. $y + 4 = 9(x + 5)$

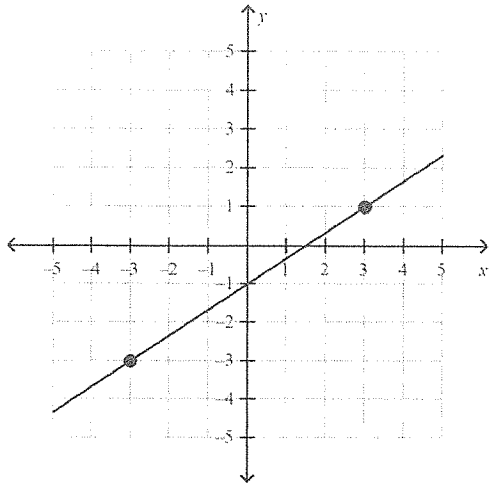
b. $y - 4 = 9(x - 5)$

c. $y + 4 = 9x - 5$

d. $y - 4 = 9(x + 5)$

What is an equation of the line?

_____ 27.



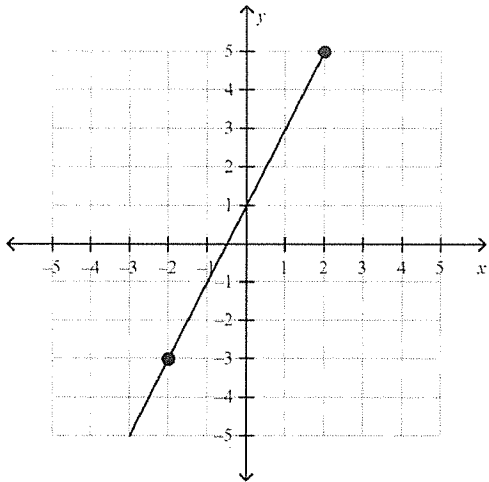
a. $y + 1 = \frac{3}{2}(x + 3)$

b. $y + 3 = \frac{2}{3}(x + 3)$

c. $y - 3 = \frac{3}{2}(x - 3)$

d. $y + 3 = -\frac{2}{3}(x - 3)$

_____ 28.



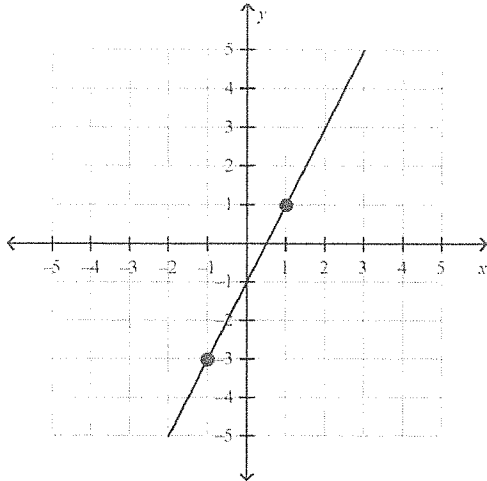
a. $y + 3 = -2(x - 2)$

b. $y + 5 = \frac{1}{2}(x + 2)$

c. $y - 3 = \frac{1}{2}(x - 2)$

d. $y + 3 = 2(x + 2)$

_____ 29.



a. $y - 3 = \frac{1}{2}(x - 1)$

c. $y + 3 = -2(x - 1)$

b. $y + 1 = \frac{1}{2}(x + 1)$

d. $y + 3 = 2(x + 1)$

Find the x- and y-intercept of the line.

_____ 30. $3x + 4y = 60$

a. x-intercept is 3; y-intercept is 4

c. x-intercept is 15; y-intercept is 20

b. x-intercept is 20; y-intercept is 15

d. x-intercept is 4; y-intercept is 3

_____ 31. $-8x - 4y = 48$

a. x-intercept is -4; y-intercept is -8

c. x-intercept is -12; y-intercept is -6

b. x-intercept is -8; y-intercept is -4

d. x-intercept is -6; y-intercept is -12

_____ 32. $-5x - 8y = 120$

a. x-intercept is -24; y-intercept is -15

c. x-intercept is -15; y-intercept is -24

b. x-intercept is -8; y-intercept is -5

d. x-intercept is -5; y-intercept is -8

_____ 33. Write $y = \frac{1}{4}x + 5$ in standard form using integers.

a. $-x + 4y = 5$

c. $-x - 4y = 20$

b. $-x + 4y = 20$

d. $4x - y = 20$

_____ 34. Write $y = \frac{3}{4}x + 3$ in standard form using integers.

a. $-3x + 4y = 3$

c. $-3x + 4y = 12$

b. $-3x - 4y = 12$

d. $4x - 3y = 12$

_____ 35. Write $y = \frac{3}{5}x + 7$ in standard form using integers.

a. $-3x + 5y = 35$

b. $-3x - 5y = 35$

c. $-3x + 5y = 7$

d. $5x - 3y = 35$

Write an equation for the line that is parallel to the given line and passes through the given point.

_____ 36. $y = 3x - 8$; $(1, -15)$

a. $y = \frac{1}{3}x - 18$

b. $y = 3x + 46$

c. $y = -\frac{1}{3}x + 18$

d. $y = 3x - 18$

_____ 37. $y = 5x - 6$; $(-2, -23)$

a. $y = \frac{1}{5}x - 13$

b. $y = 5x + 113$

c. $y = -\frac{1}{5}x + 13$

d. $y = 5x - 13$

_____ 38. $y = 4x + 8$; $(-3, -11)$

a. $y = -\frac{1}{4}x - 1$

b. $y = 4x + 41$

c. $y = 4x + 1$

d. $y = \frac{1}{4}x + 1$

_____ 39. $y = 2x - 5$; $(3, -7)$

a. $y = -\frac{1}{2}x + 13$

b. $y = 2x + 17$

c. $y = \frac{1}{2}x - 13$

d. $y = 2x - 13$

Tell whether the lines for each pair of equations are *parallel*, *perpendicular*, or *neither*.

_____ 40. $y = \frac{1}{8}x - 8$

$8x + y = -3$

a. parallel

b. perpendicular

c. neither

_____ 41. $y = \frac{7}{3}x + 3$

$12x + 28y = -12$

a. parallel

b. perpendicular

c. neither

_____ 42. $y = -\frac{1}{4}x - 6$

$24x - 6y = 6$

a. parallel

b. perpendicular

c. neither

_____ 43. $y = \frac{1}{3}x - 10$

$12x + 4y = -16$

a. parallel

b. perpendicular

c. neither

Write the equation of a line that is perpendicular to the given line and that passes through the given point.

_____ 44. $6x + 2y = 16; (-6, -3)$

a. $y = 3x - 1$

c. $y = \frac{1}{3}x - 1$

b. $y = 3x - 5$

d. $y = -\frac{1}{3}x - 1$

_____ 45. $3x + 6y = 2; (-3, -5)$

a. $y = \frac{1}{2}x + 7$

c. $y = 2x + 1$

b. $y = -2x + 1$

d. $y = \frac{1}{2}x + 1$

_____ 46. $3x + 9y = 9; (-10, 2)$

a. $y = 3x + 32$

c. $y = -3x + 32$

b. $y = \frac{1}{3}x - 16$

d. $y = \frac{1}{3}x + 32$