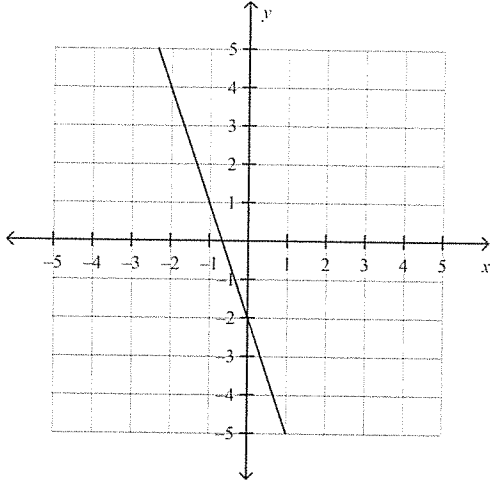


Algebra Unit 5 Study Guide Mid-Chp

Find the slope of the line.

_____ 1.



- a. 3 b. $\frac{1}{3}$ c. $-\frac{1}{3}$ d. -3

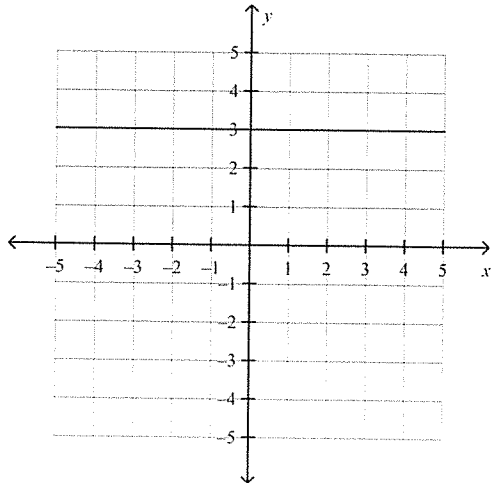
What is the slope of the line that passes through the pair of points?

_____ 2. (3, 8), (8, 0)

- a. $\frac{8}{5}$ b. $-\frac{5}{8}$ c. $\frac{5}{8}$ d. $-\frac{8}{5}$

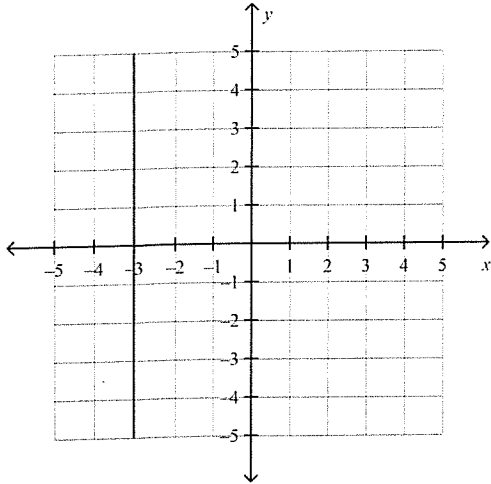
What is the slope of the line?

_____ 3.



- a. 0 b. undefined

_____ 4.



a. 0

b. undefined

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

_____ 5. $6x = 3y$ a. yes; $k = -2$ b. yes; $k = \frac{1}{2}$ c. yes; $k = 2$

d. no

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

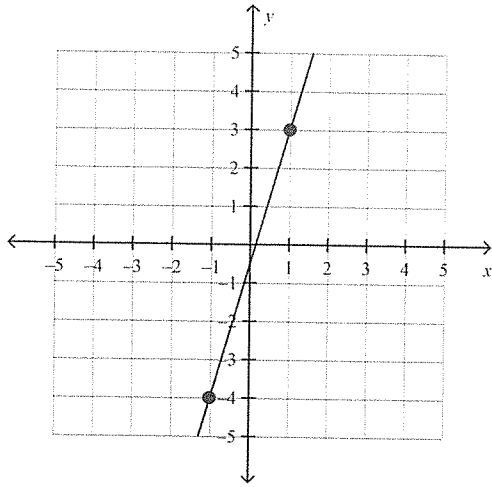
_____ 6. $y = 10x + 5$ a. The slope is -10 and the y-intercept is -5 .b. The slope is 10 and the y-intercept is 5 .c. The slope is -5 and the y-intercept is 10 .d. The slope is 5 and the y-intercept is 10 .

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

_____ 7. $m = -1, b = -3$ a. $y = x - 3$ b. $y = -x + 3$ c. $y = -x - 3$ d. $y = -3x - 1$

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

8.



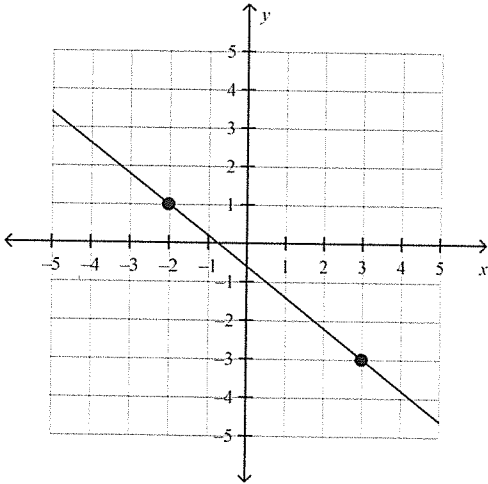
a. $y = \frac{7}{2}x - \frac{1}{2}$

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

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

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

9.



a. $y = \frac{4}{5}x + \frac{3}{5}$

c. $y = -\frac{4}{5}x - \frac{3}{5}$

b. $y = -\frac{5}{4}x + \frac{3}{5}$

d. $y = -\frac{3}{5}x + \frac{4}{5}$

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

10. (5, 7), (7, 3)

a. $y = 2x - 17$

c. $y = \frac{1}{2}x + 17$

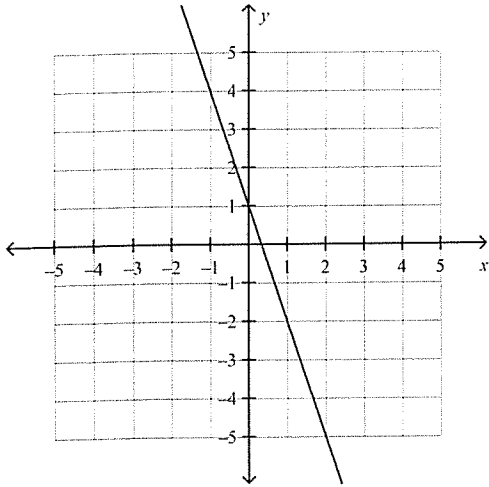
b. $y = -\frac{1}{2}x - 17$

d. $y = -2x + 17$

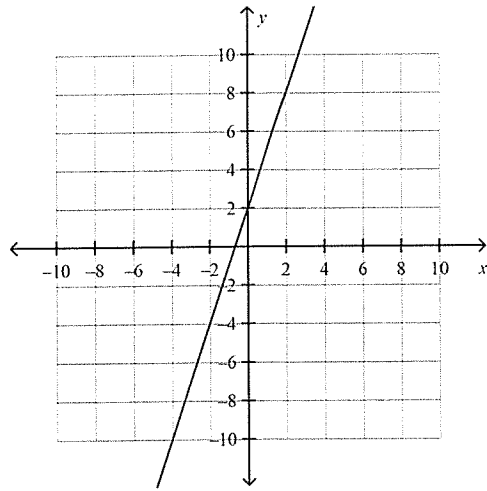
Graph the equation.

11. $y = 3x + 1$

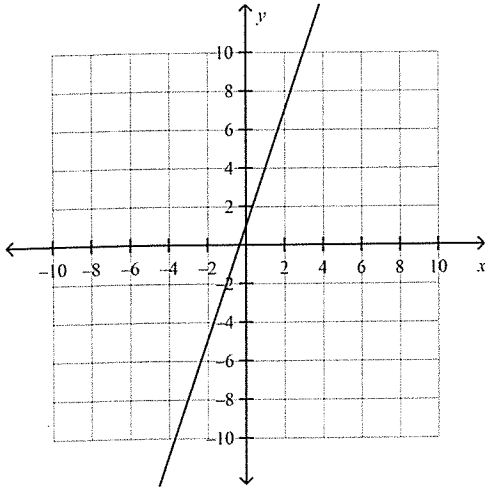
a.



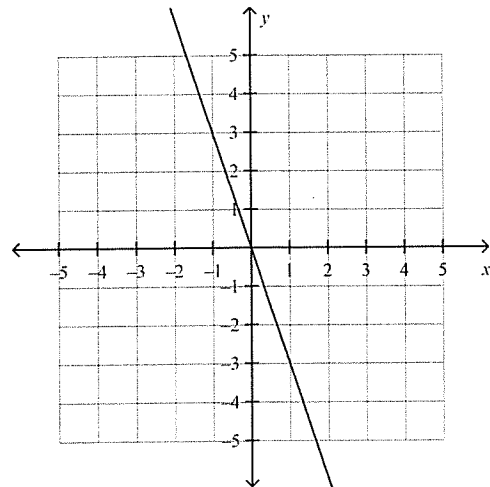
c.



b.



d.



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

12. $(4, -1); m = -9$

a. $y - 1 = -9x + 4$

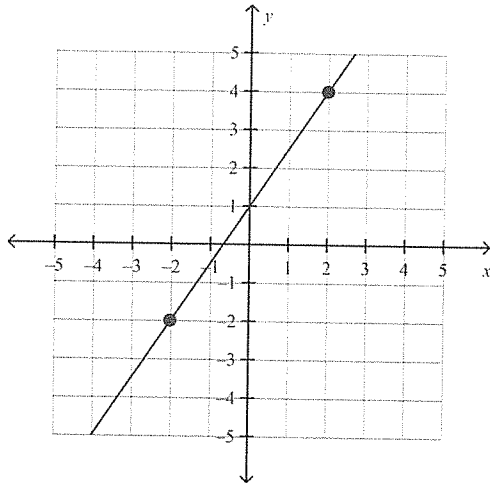
b. $y - 1 = -9(x - 4)$

c. $y + 1 = -9(x - 4)$

d. $y + 1 = -9(x + 4)$

What is an equation of the line?

_____ 13.



- a. $y + 4 = \frac{2}{3}(x + 2)$ c. $y - 2 = \frac{2}{3}(x - 2)$
 b. $y + 2 = \frac{3}{2}(x + 2)$ d. $y + 2 = -\frac{3}{2}(x - 2)$

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

_____ 14. $x - 5y = 30$

- a. x -intercept is 1; y -intercept is -5 c. x -intercept is -6 ; y -intercept is 30
 b. x -intercept is -5 ; y -intercept is 1 d. x -intercept is 30; y -intercept is -6

_____ 15. Write $y = \frac{5}{8}x + 12$ in standard form using integers.

- a. $-5x + 8y = 96$ c. $-5x + 8y = 12$
 b. $8x - 5y = 96$ d. $-5x - 8y = 96$

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

_____ 16. $y = 3x + 7$; $(2, 10)$

- a. $y = \frac{1}{3}x + 4$ c. $y = 3x - 28$
 b. $y = 3x + 4$ d. $y = -\frac{1}{3}x - 4$

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

_____ 17. $y = -\frac{1}{2}x + 8$

$4x - 2y = 7$

- a. parallel b. perpendicular c. neither

Name: _____

ID: A

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

_____ 18. $-5x - 3y = 10$; $(0, -5)$

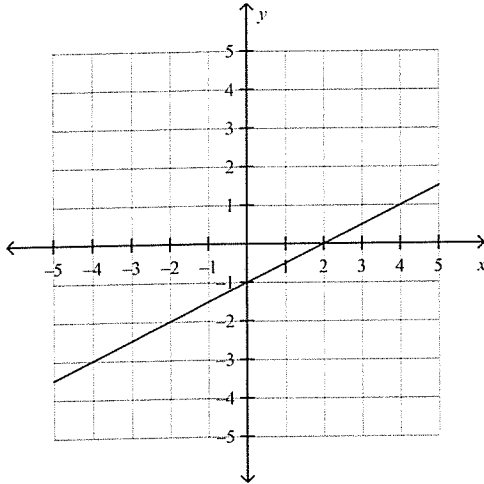
a. $y = -\frac{3}{5}x - 5$

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

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

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

_____ 19. What do you expect the slope of the line to be from looking at the graph?



- a. The slope is negative
- b. The slope is positive