

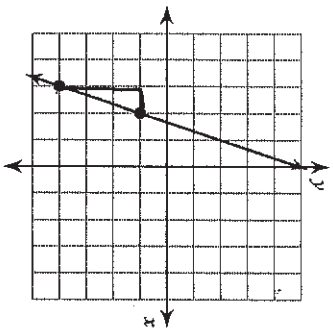
Assignment

Date _____

Period _____

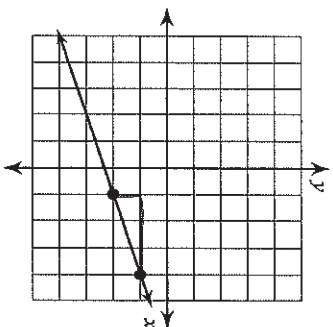
Find the slope of each line.

1)



$$m = \frac{\text{rise}}{\text{run}} = \frac{3}{1} = 3$$

2)



$$m = \frac{\text{rise}}{\text{run}} = \frac{1}{3}$$

Find the slope of the line through each pair of points.

3) $(13, 0), (15, 1)$

$$m = \frac{1-0}{15-13} = \frac{1}{2}$$

4) $(-5, -10), (-7, 11)$

$$m = \frac{11 - (-10)}{-7 - (-5)} = \frac{21}{-2}$$

5) $(-8, -9), (17, 5)$

$$m = \frac{5 - (-9)}{17 - (-8)} = \frac{14}{25}$$

6) $(-17, -4), (2, -1)$

$$m = \frac{-1 - (-4)}{2 - (-17)} = \frac{3}{19}$$

Find the slope of each line.

7) $y = \frac{5}{2}x - 3$

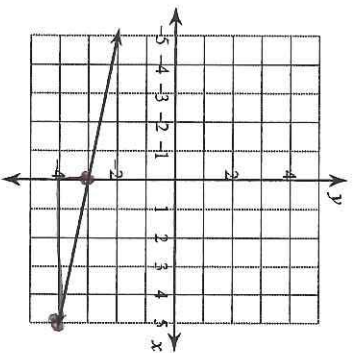
$$m = \frac{5}{2}$$

8) $y = \frac{4}{3}x$

$$m = \frac{4}{3}$$

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

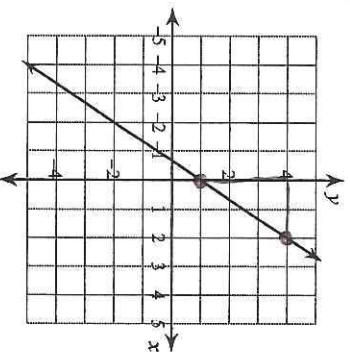
9)



$$b = -3$$
$$m = -1/5$$

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

10)



$$b = 1$$
$$m = 3/2$$

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

Write the slope-intercept form of the equation of the line through the given points.

11) through: (4, 4) and (-2, -3)

$$m = \frac{-3 - 4}{-2 - 4} = \frac{-7}{-6} = \frac{7}{6}$$

$$y = mx + b$$

$$4 = \frac{7}{6}(4) + b$$

$$4 = \frac{28}{6} + b$$

$$-\frac{2}{3} = b$$

$$y = \frac{7}{6}x - \frac{2}{3}$$

12) through: (5, -5) and (-2, -2)

$$m = \frac{-2 - (-5)}{-2 - 5} = \frac{3}{-7}$$

$$y = mx + b$$

$$-5 = -\frac{3}{7}(5) + b$$

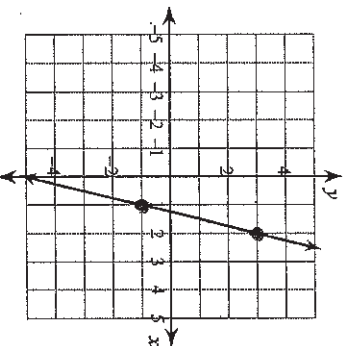
$$-5 = -\frac{15}{7} + b$$

$$-\frac{20}{7} = b$$

$$y = -\frac{3}{7}x - \frac{20}{7}$$

Write the point slope form of the equation of each line.

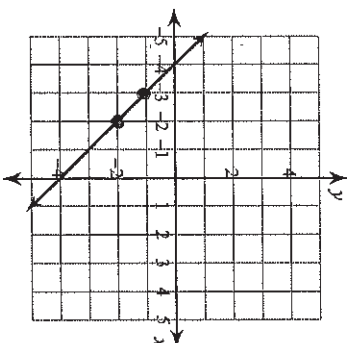
13)



$$m = \frac{1}{1}$$

$$y + 1 = 1(x - 1)$$

14)



$$m = -1$$

$$y + 1 = -1(x + 3)$$

Write the point slope form of the equation of the line through the given points.

15) through: $(-2, 5)$ and $(-4, 0)$

$$m = \frac{0-5}{-4-(-2)} = \frac{-5}{-2} = \frac{5}{2}$$

~~$$y - 5 = \frac{5}{2}(x - 2)$$~~

$$y - 5 = \frac{5}{2}(x + 2)$$

16) through: $(-3, 4)$ and $(0, 3)$

$$m = \frac{3-4}{0-(-3)} = \frac{-1}{3}$$

$$y - 4 = \frac{-1}{3}(x + 3)$$

Determine if the equation represents a direct variation. If so, what is the constant of variation?

17) $5 = y - 3x$

$$5 + 3x = y$$

No direct variation

18) $y = -x$

$$y = -1x$$

19) $-9x = 6y$

$$\frac{-9}{6}x = y$$

$$-\frac{3}{2}x = y$$

$$y = -\frac{3}{2}x$$

20) $-y + 6x = 2$

$$6x = y + 2$$

$$6x - 2 = y$$

No direct variation

