

Find the slope of the line that contains each pair of points.

a.)  $x_1, y_1$  (3, 4)       $x_2, y_2$  (5, 8)

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{8 - 4}{5 - 3}$$

$$= \frac{4}{2} = \frac{2}{1}$$

$m = 2$

b.)  $x_1, y_1$  (-2, -9)       $x_2, y_2$  (-3, -6)

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-6 + 9}{-3 + 2}$$

$$= \frac{3}{-1}$$

$m = -3$

Find the slope of the line that contains each pair of points.

c.)  $x_1, y_1$  (6, -4)       $x_2, y_2$  (8, -4)

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-4 + 4}{8 - 6}$$

$$= \frac{0}{2}$$

$m = 0$

d.)  $x_1, y_1$  (2, 3)       $x_2, y_2$  (-5, -1)

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-1 - 3}{-5 - 2}$$

$$= \frac{-4}{-7}$$

$m = \frac{4}{7}$

Find the slope of the line that contains each pair of points.

e.)  $x_1, y_1$  (7, 2)       $x_2, y_2$  (7, -2)

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-2 - 2}{7 - 7}$$

$$= \frac{-4}{0}$$

No Slope

f.)  $x_1, y_1$  (-5, 7)       $x_2, y_2$  (1, -2)

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-2 - 7}{1 + 5}$$

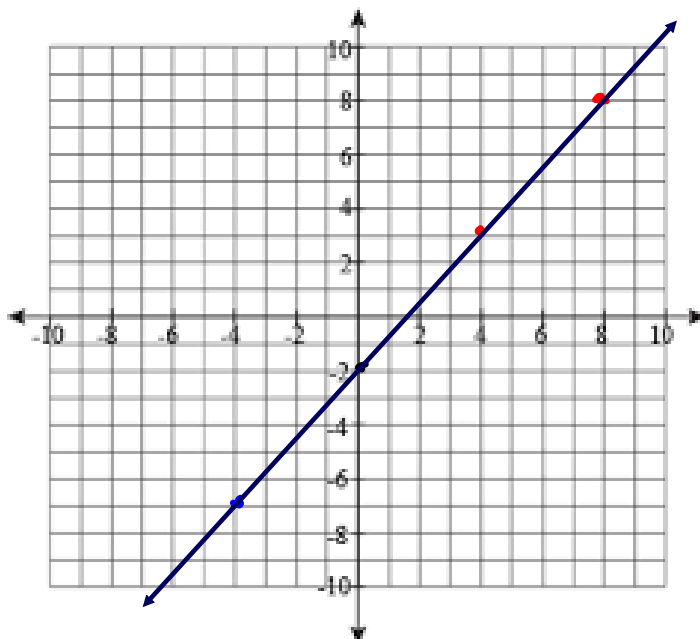
$$= \frac{-9}{6} = -\frac{3}{2}$$

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

Graph the line with the given point and slope.

Point: (0, -2)

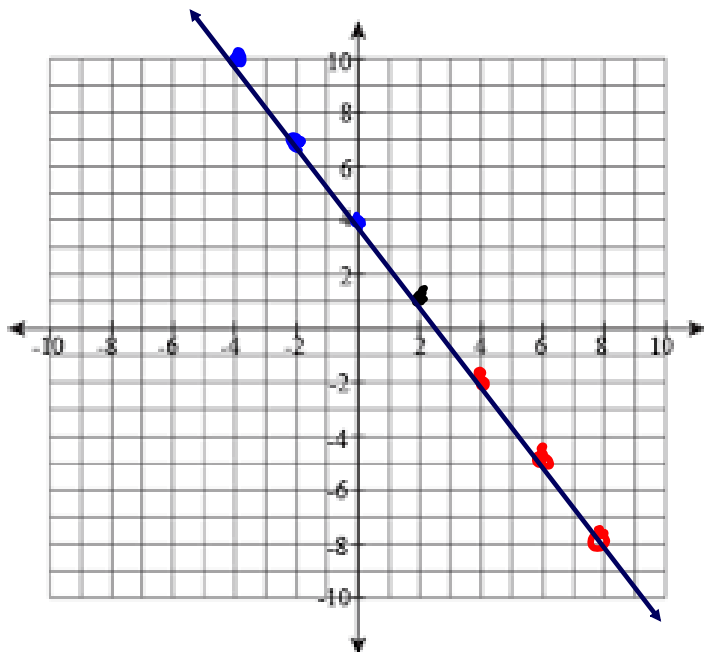
Slope:  $\frac{5}{4}$



Graph the line with the given point and slope.

Point: (2, 1)

Slope:  $-\frac{3}{2}$



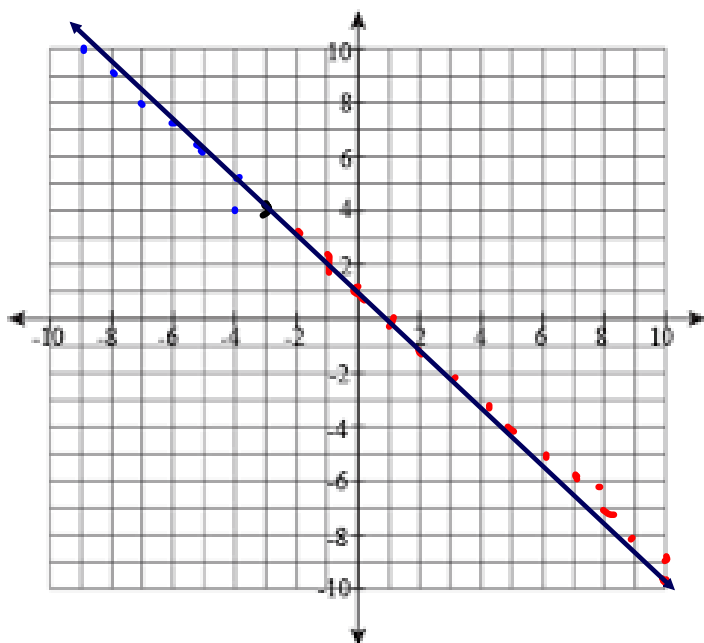
$$\frac{-3}{2}$$

Handwritten annotations: a red arrow pointing down from the numerator -3, a red arrow pointing right from the denominator 2, a blue arrow pointing up from the denominator 2, and a blue arrow pointing left from the denominator 2.

Graph the line with the given point and slope.

Point: (-3, 4)

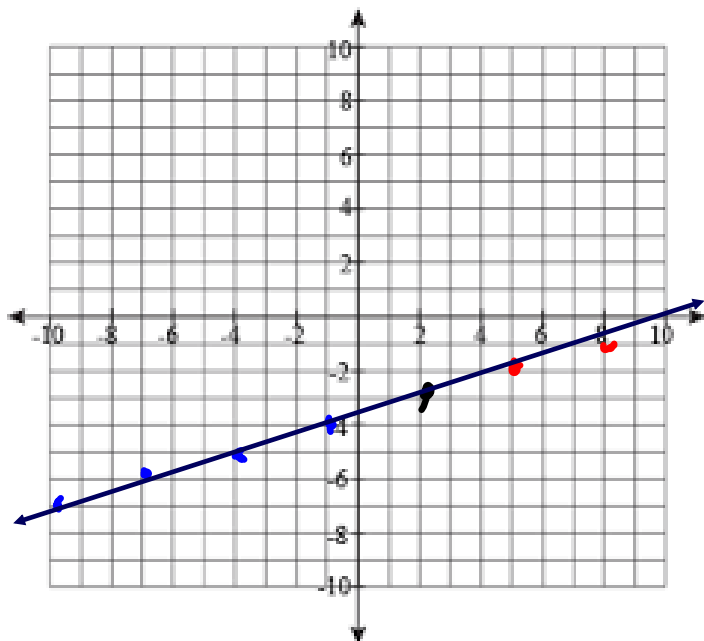
Slope:  $-\frac{1}{1}$



Graph the line with the given point and slope.

Point:  $(2, -3)$

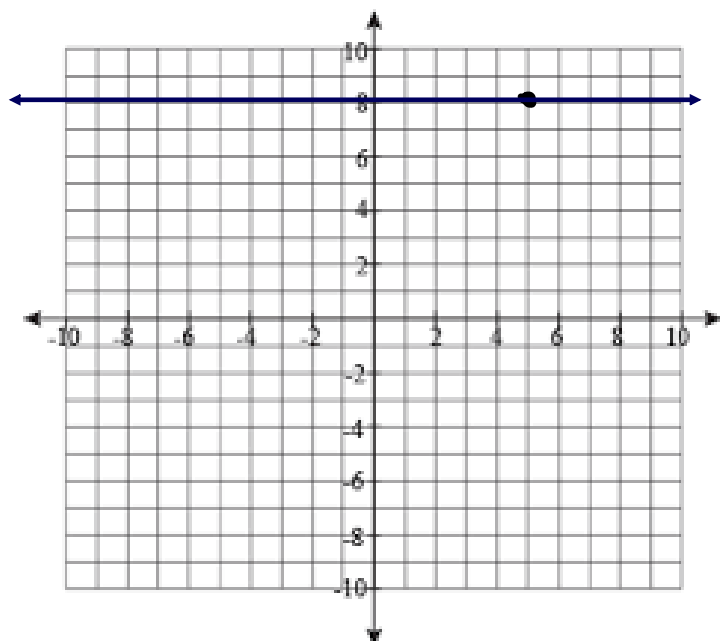
Slope:  $\frac{1}{3}$  ↑  
~~3~~ →



Graph the line with the given point and slope.

Point:  $(5, 8)$

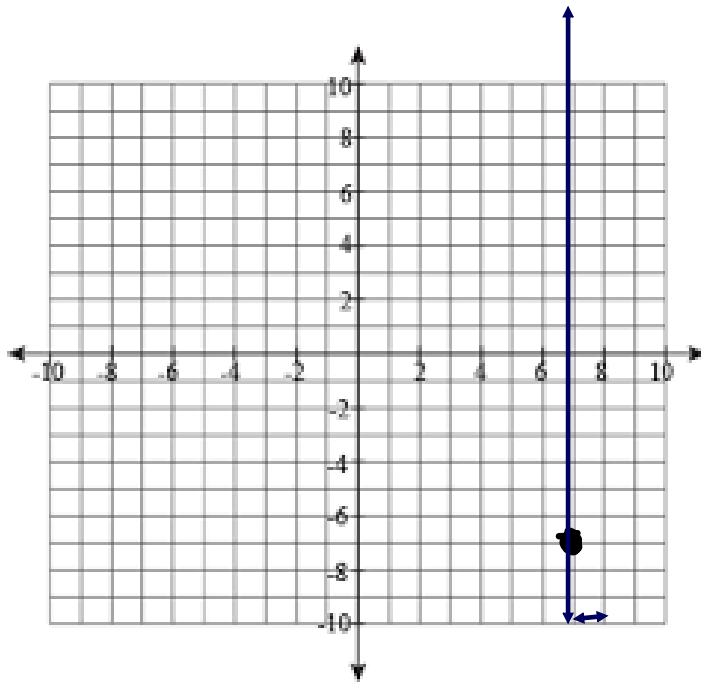
Slope: 0



Graph the line with the given point and slope.

Point:  $(7, -7)$

**NO SLOPE**  
Slope: Undefined



8.8 Using the Slope to Graph.notebook