

Rate of Change and Slope Assignment

Find the slope and y-intercept of each linear equation given below.

1. $y = 2x + 3$

2. $-y = -5x - 9$

3. $y = -2.5x - 3.01$

4. $y = 1000x - 9003$

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

1. $m = -1, b = 2$

2. $m = 5, b = -10$

3. $m = 0.4, b = 1$

4. $m = -0.01, b = -100$

Write an equation in slope-intercept form of the line that passes through the given points.

1. $(-1, 2)$ and $(0, 0)$

2. $(12, 10)$ and $(16, 8)$

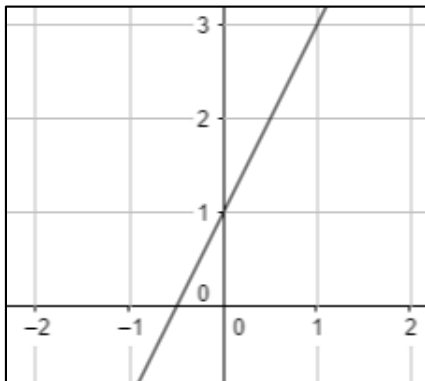
Rate of Change and Slope Assignment

3. $(0, -1)$ and $(5, 6)$

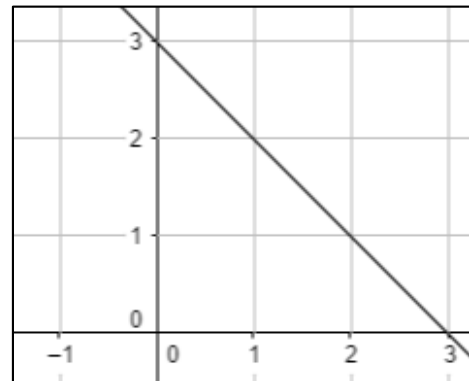
4. $(2, 8)$ and $(-3, 6)$

Find the slope of each line given below.

1.



2.



Rate of Change and Slope Assignment

Find the slope and y-intercept of each linear equation given below.

1. $y = 2x + 3$

Slope $m = 2$

y - intercept = 3

2. $-y = -5x - 9$

Slope $m = -5$

y - intercept = -9

3. $y = -2.5x - 3.01$

Slope $m = -2.5$

y - intercept = -3.01

4. $y = 1000x - 9003$

Slope $m = 1000$

y - intercept = -9003

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

1. $m = -1, b = 2$

$y = mx + b$

$y = -x + 2$

2. $m = 5, b = -10$

$y = mx + b$

$y = 5x - 10$

3. $m = 0.4, b = 1$

$y = mx + b$

$y = 0.4x + 1$

4. $m = -0.01, b = -100$

$y = mx + b$

$y = -0.01x - 100$

Write an equation in slope-intercept form of the line that passes through the given points.

1. $(-1, 2)$ and $(0, 0)$

$Slope\ m = \frac{0-2}{0-(-1)} = -2$

$y = mx + b \rightarrow 0 = -2(0) + b$

$b = 0$

$y = -2x$

2. $(12, 10)$ and $(16, 8)$

$Slope\ m = \frac{8-10}{16-12} = -\frac{1}{2}$

$y = mx + b \rightarrow 10 = -\frac{1}{2}(12) + b$

$b = 16$

$y = -\frac{1}{2}x + 16$

Rate of Change and Slope Assignment3. $(0, -1)$ and $(5, 6)$

$$\text{Slope } m = \frac{6 - (-1)}{5 - 0} = \frac{7}{5}$$

$$y = mx + b \rightarrow 6 = \frac{7}{5}(5) + b$$

$$b = -1$$

$$y = \frac{7}{5}x - 1$$

4. $(2, 8)$ and $(-3, 6)$

$$\text{Slope } m = \frac{6 - 8}{-3 - 2} = \frac{2}{5}$$

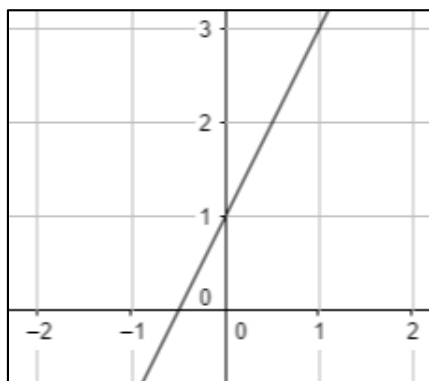
$$y = mx + b \rightarrow 8 = \frac{2}{5}(2) + b$$

$$b = \frac{36}{5}$$

$$y = \frac{2}{5}x + \frac{36}{5}$$

Find the slope of each line given below.

1.



$$\text{Slope} = \frac{\text{rise}}{\text{run}}$$

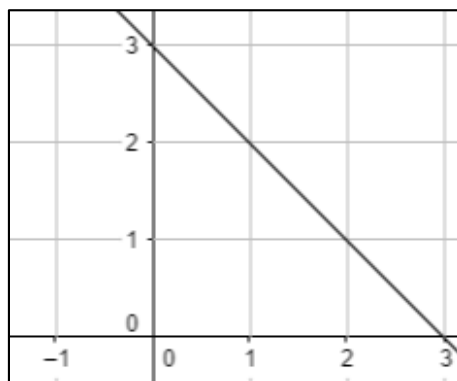
$$\text{rise} = 2, \text{ run} = 1$$

$$\text{Slope} = \frac{2}{1} = 2$$

$$y\text{-intercept} = 1$$

$$y = 2x + 1$$

2.



$$\text{Slope} = \frac{\text{rise}}{\text{run}}$$

$$\text{rise} = -1, \text{ run} = 1$$

$$\text{Slope} = \frac{-1}{1} = -1$$

$$y\text{-intercept} = 3$$

$$y = -x + 3$$