

## Point-Slope Form Assignment

Write an equation in point-slope form of the line passing through the point given in each case and having slope  $m$ .

1.  $(2, 3)$  ;  $m = 2$

2.  $(12, 43)$  ;  $m = 10$

3.  $(-3, -5)$  ;  $m = -2$

4.  $(-2, 1)$  ;  $m = \frac{-2}{3}$

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

1.  $(4, 0)$  ,  $(-2, 1)$

2.  $(5, 1)$  ,  $(0, 2)$

3.  $(0, 0)$  ,  $(1, 1)$

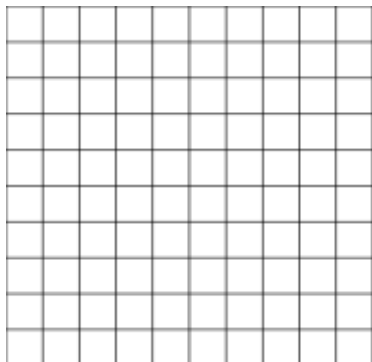
4.  $(3, 1)$  ,  $(4, 3)$

Name: \_\_\_\_\_ Period: \_\_\_\_\_ Date: \_\_\_\_\_

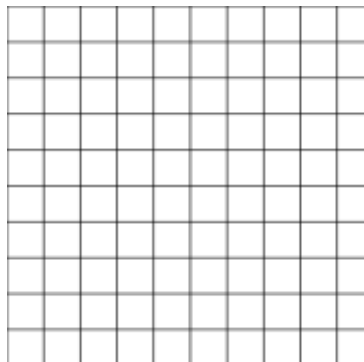
## Point-Slope Form Assignment

Graph each equation given below.

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



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



**Point-Slope Form** Assignment

Write an equation in point-slope form of the line passing through the point given in each case and having slope  $m$ .

1.  $(2, 3) ; m = 2$

$$y - y_1 = m(x - x_1)$$

$$y - 3 = 2(x - 2)$$

2.  $(12, 43) ; m = 10$

$$y - y_1 = m(x - x_1)$$

$$y - 43 = 10(x - 12)$$

3.  $(-3, -5) ; m = -2$

$$y - y_1 = m(x - x_1)$$

$$y - (-5) = -2(x - (-3))$$

$$y + 5 = -2(x + 3)$$

4.  $(-2, 1) ; m = \frac{-2}{3}$

$$y - y_1 = m(x - x_1)$$

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

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

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

1.  $(4, 0) , (-2, 1)$

$$\text{Slope } m = \frac{1-0}{-2-4} = -\frac{1}{6}$$

$$\text{Put } (4, 0) \text{ in } y - y_1 = m(x - x_1):$$

$$y - 0 = -\frac{1}{6}(x - 4)$$

$$y = -\frac{1}{6}x + \frac{2}{3}$$

2.  $(5, 1) , (0, 2)$

$$\text{Slope } m = \frac{2-1}{0-5} = -\frac{1}{5}$$

$$\text{Put } (0, 2) \text{ in } y - y_1 = m(x - x_1):$$

$$y - 2 = -\frac{1}{5}(x - 0)$$

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

3.  $(0, 0) , (1, 1)$

$$\text{Slope } m = \frac{1-0}{1-0} = 1$$

$$\text{Put } (0, 0) \text{ in } y - y_1 = m(x - x_1):$$

$$y - 0 = 1(x - 0)$$

$$y = x$$

4.  $(3, 1) , (4, 3)$

$$\text{Slope } m = \frac{3-1}{4-3} = 2$$

$$\text{Put } (3, 1) \text{ in } y - y_1 = m(x - x_1):$$

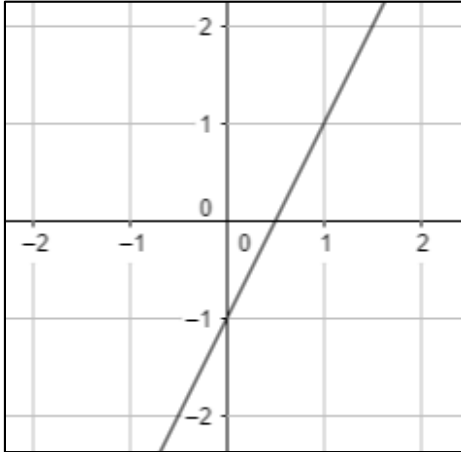
$$y - 1 = 2(x - 3)$$

$$y = 2x - 5$$

## Point-Slope Form Assignment

Graph each equation given below.

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



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

