

## SRHS Math 1

Write the point-slope form of the equation of the line through the given point with the given slope.

1) through:  $(-4, 3)$ , slope  $= \frac{1}{2}$

$$y - 3 = \frac{1}{2}(x + 4)$$

2) through:  $(2, -1)$ , slope  $= \frac{3}{2}$

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

Write the point-slope form of the equation of the line described.

3) through:  $(-2, -4)$ , parallel to  $y = 3x - 1$

$$y + 4 = 3(x + 2)$$

4) through:  $(2, -3)$ , parallel to  $y = -\frac{1}{7}x$

$$y + 3 = -\frac{1}{7}(x - 2)$$

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

5) through:  $(3, 4)$  and  $(2, 1)$

$$y - 4 = 3(x - 3)$$

or

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

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

$$y + 3 = \frac{7}{3}(x + 3)$$

or

$$y - 4 = \frac{7}{3}(x - 0)$$

7) through:  $(3, 1)$  and  $(-4, 3)$

$$y - 1 = -\frac{2}{7}(x - 3)$$

or

$$y - 3 = -\frac{2}{7}(x + 4)$$

8) through:  $(-2, -1)$  and  $(-1, -4)$

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

or

$$y + 4 = -3(x + 1)$$

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

9) through:  $(-1, -2)$  and  $(0, -5)$

$$y = -3x - 5$$

10) through:  $(2, 2)$  and  $(1, -1)$

$$y = 3x - 4$$