

1. Write the equation, in Point-Slope Form, of the line that passes through this pair of points

$(-6, 5)$ and $(-2, -9)$

EQ:

$$\frac{-9-5}{-2-(-6)} = \frac{-14}{4} = -\frac{7}{2}$$

$$y-5 = -\frac{7}{2}(x+6)$$

$$y+9 = -\frac{7}{2}(x+2)$$

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

2. Write the equation, in Point-Slope Form, of the line that passes through this pair of points

$(8, -3)$ and $(5, -3)$

EQ:

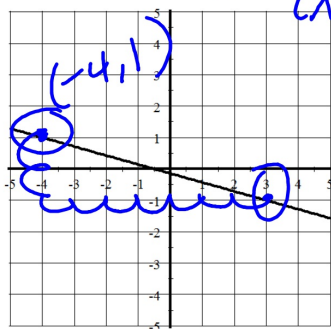
$$y+3 = 0(x-8)$$

$$y = -3$$

3. Write the equation, in Point-Slope Form, of the line shown in the graph below.

EQ:

$$y-1 = -\frac{2}{7}(x+4)$$



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

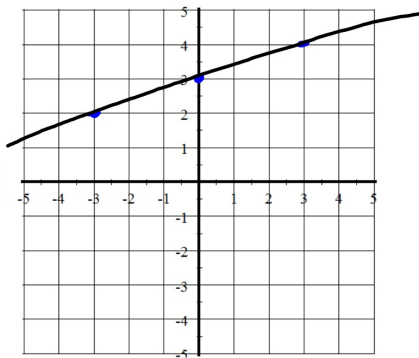
4. Graph this equation using at least 3 points.

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

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

$$\text{Pt } (-3, 2)$$

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



5. Rewrite each equation into Slope-Intercept Form (don't use any rounded decimals)

a) $y - 8 = -\frac{2}{3}(x + 12)$

$$y - 8 = -\frac{2}{3}x - 8$$

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

$y = mx + b$

b) $y + 2 = \frac{1}{6}(x - 5)$

$$y + 2 = \frac{1}{6}x - \frac{5}{6}$$

$$y = \frac{1}{6}x - \frac{5}{6} - 2$$

$$y = \frac{1}{6}x - \frac{17}{6}$$

Quiz Review

Write an equation in point-slope form of the line that passes through the given point and has the given slope.

① $(2, 7); m = -4$

$$y - 7 = -4(x - 2)$$

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

$$y = mx + b$$

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

② $(12, 5); m = -3$

$$y - 5 = -3(x - 12)$$

③ $(4, -5); m = 6$

$$y + 5 = 6(x - 4)$$

④ $(-6, -2); m = 3$

$$y + 2 = 3(x + 6)$$

⑤ $(7, -6); m = \frac{1}{2}$

$$y + 6 = \frac{1}{2}(x - 7)$$

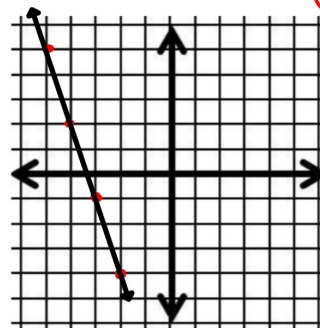
⑥ $(-8, 2); m = -\frac{3}{4}$

$$y - 2 = -\frac{3}{4}(x + 8)$$

Graph the equations below.

⑦ $y + 4 = -3(x + 2)$

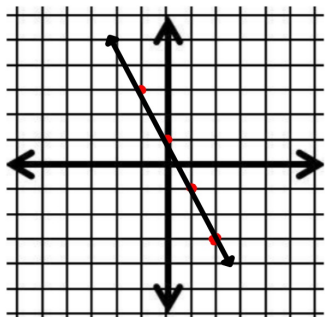
$(-2, -4) \quad m = -3$



8 $y + 3 = -2(x - 2)$

pt. $(2, -3)$

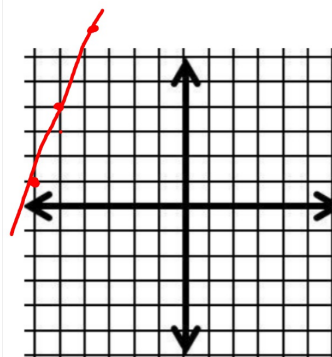
$m = -2$



9 $y - 1 = 3(x + 6)$

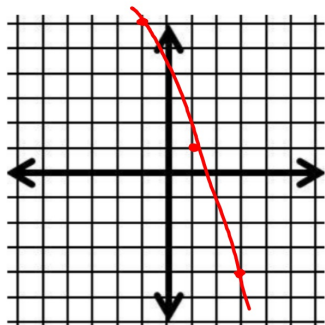
pt $(-6, 1)$

$m = 3$



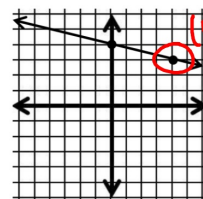
10 $y + 4 = \frac{-5}{2}(x - 3)$

$m = \frac{-5}{2}$
 $(3, -4)$



Write an equation in point-slope form of the line graphed below. (Use the right hand point)

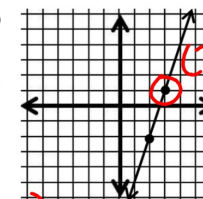
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$(4, 3)$

$m = \frac{-1}{4}$

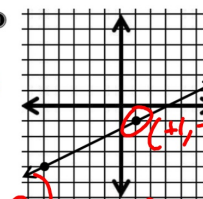
$y - 3 = \frac{-1}{4}(x - 4)$



$(3, 1)$

$m = 3$

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



$(1, -1)$

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

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

14. $(4, 7)$ and $(5, 1)$
 $y - 7 = -6(x - 4)$

15. $(9, -2)$ and $(-3, 2)$
 $y + 2 = -\frac{1}{3}(x - 9)$

16. $(3, -8)$ and $(7, -2)$
 $y + 8 = \frac{3}{2}(x - 3)$

Hwk #37 - Point Slope Form Practice Worksheet

IXL #15 - S.4 & S.21 due Friday at 4pm!