

Name: *Key*

Unit 4 Day 9
Fun Work

1. Write an equation in point slope form for a line with points $(-2, 3)$ and $(-5, 6)$.

$$m = \frac{6-3}{-5-2} = \frac{3}{-3} = -1$$
$$y-3 = -1(x+2)$$

OR

$$y-6 = -1(x+5)$$

2. Rewrite the equation from Question #1 in slope-intercept form.

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

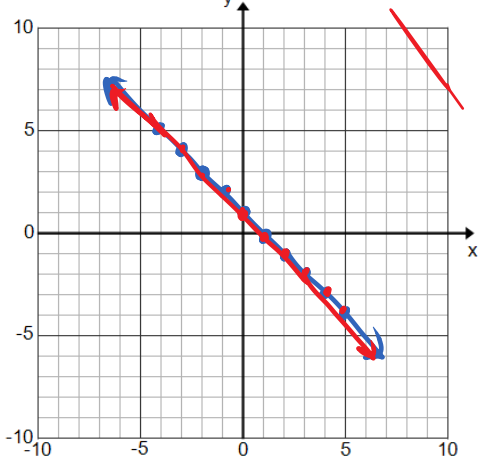
3. Graph the lines in Questions #1 and #2. What do you notice about these lines?

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

point $(-2, 3)$
 $m = -1$

$$y = -x+1$$

same line 😊



4. Write the equation of the line in point-slope form with an x-intercept of 5 and a y-intercept of -3.

$$(5, 0)$$
$$(0, -3)$$
$$m = \frac{-3-0}{0-5} = \frac{-3}{-5} = \frac{3}{5}$$
$$y+3 = \frac{3}{5}(x-0)$$

5. Graph the line using point slope form.

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

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

