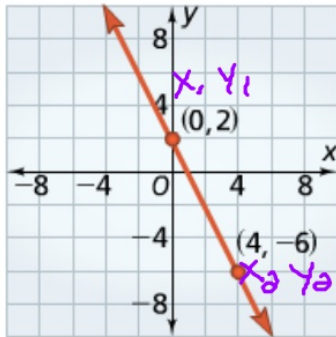


### 3.8 Review - Warm - up

For Exercises 1 and 2, use the graph below.



$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-6 - 2}{4 - 0} = \frac{-8}{4} = -2$$

$m = -2 \checkmark$

$$y - -4 = -2(x - 5)$$

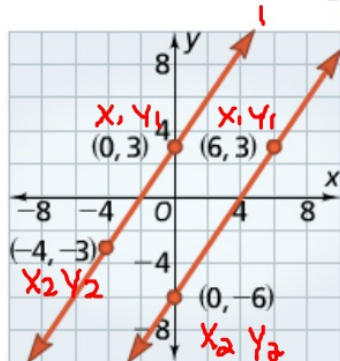
$$y + 4 = -2x + 10$$

$$\begin{array}{r} -4 \qquad -4 \\ \hline y = -2x + 6 \end{array}$$

1. What is an equation for the line parallel to the one shown and contains (5, -4)?

2. What is an equation for the line perpendicular to the one shown and contains (-2, -3)?

3. Are the lines below parallel? Explain.



$$m_1 = \frac{-3 - 3}{-4 - 0} = \frac{-6}{-4} = \frac{3}{2} \checkmark$$

$$m_2 = \frac{-6 - 3}{0 - 6} = \frac{-9}{-6} = \frac{3}{2} \checkmark$$

PARALLEL!

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

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

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

$$\begin{array}{r} -3 \qquad -\frac{1}{2} \\ \hline y = \frac{1}{2}x - 2 \end{array}$$