

Warm Up Write the equation of the line.

$$(-2, 4), (3, -1)$$

$$-2, 4$$

$$\frac{-1 - 4}{3 - (-2)}$$

$$y = -1x + 2$$

$$\begin{array}{r} -5 \\ 5 \end{array} \quad \textcircled{-1} \quad \begin{matrix} (3, -1) \\ x \quad y \end{matrix}$$

$$-1 = -3 + b$$

$$+3 \quad +3$$

$$2 = b$$

$-1(3) + 2$

Homework Questions?

Try It

4. Write an equation of a line through (5, 4) that is perpendicular to $y = 3x - 4$.

x y

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

~~$$m = 3$$~~

$$m = -\frac{1}{3} \quad (5, 4)$$

x y

$$y = mx + b$$

$$4 = -\frac{1}{3}(5) + b$$

$$4 = -\frac{5}{3} + b$$

$+\frac{5}{3}$ $+\frac{5}{3}$

$$b = \frac{17}{3}$$

$$y = -\frac{1}{3}x + \frac{17}{3}$$

Given SlopeParallelPerpendicular

$$m = \frac{-2}{3}$$

$$\frac{-2}{3}$$

$$\frac{3}{2}$$

$$m = 5$$

$$5$$

$$-\frac{1}{5}$$

$$m = -2$$

$$-2$$

$$\frac{1}{2}$$

$$m = \frac{0}{1}$$

$$\frac{0}{1}$$

$$\frac{0}{1}$$

undefined

5.3 Day 2 HW

p.289 #36-47