

Please have your homework on your desk. Calculator? Yes!

Date:

TSW

QRQ2:

Solve & Graph

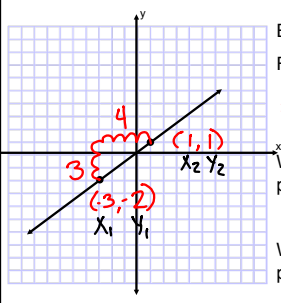
$$2(x-4) \geq 4x + 6$$

$$\begin{aligned} 2x - 8 &\geq 4x + 6 \\ -2x - 8 &\geq 4x + 6 \\ +8 &+8 \\ -2x &\geq 14 \\ \frac{-2x}{-2} &\frac{14}{-2} \\ x &\leq -7 \end{aligned}$$

Solve for y

$$14x - 7y = 21$$

$$\begin{aligned} -14x & \quad -14x \\ \hline -7y &= -14x + 21 \\ \frac{-7y}{-7} & \frac{-14x + 21}{-7} \\ y &= 2x - 3 \end{aligned}$$



Ex1  $M = \frac{y_2 - y_1}{x_2 - x_1}$

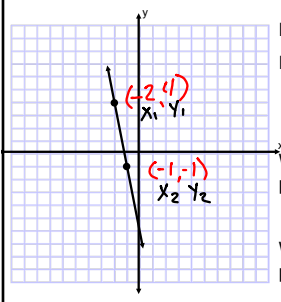
Find the slope of the given line.

$$= \frac{1 - 2}{1 - 3} = \frac{3}{4}$$

What is the slope of the line parallel to this line?

$$\parallel m = \frac{3}{4}$$

What is the slope of the line perpendicular to this line?

$$\perp m = -\frac{4}{3}$$


Ex2  $M = \frac{y_2 - y_1}{x_2 - x_1}$

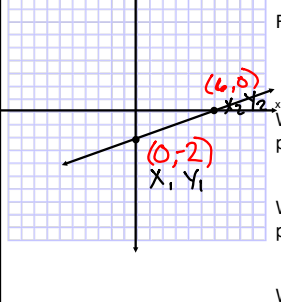
Find the slope of the given line.

$$= \frac{-1 - 4}{-1 - (-2)} = \frac{-5}{1} = -5$$

What is the slope of the line parallel to this line?

$$\parallel m = -5$$

What is the slope of the line perpendicular to this line?

$$\perp m = \frac{1}{5}$$


Ex3  $M = \frac{y_2 - y_1}{x_2 - x_1}$

Find the slope of the given line.

$$= \frac{0 - (-2)}{6 - 0} = \frac{2}{6} = \frac{1}{3}$$

What is the slope of the line parallel to this line?

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

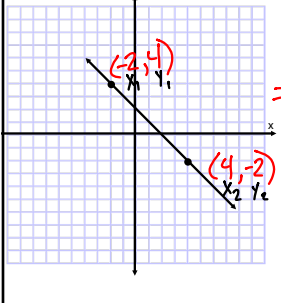
What is the slope of the line perpendicular to this line?

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

What is the x-intercept of this graph?

$$(6, 0)$$

What is the y-intercept of this graph?

$$(0, -2)$$


Ex4  $M = \frac{y_2 - y_1}{x_2 - x_1}$

Find the slope of the given line.

$$= \frac{-2 - 4}{4 - (-2)} = \frac{-6}{6} = -1$$

What is the slope of the line parallel to this line?

$$\parallel m = -1$$

What is the slope of the line perpendicular to this line?

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

What is the x-intercept of this graph?

$$(2, 0)$$

What is the y-intercept of this graph?

$$(0, 2)$$

Ex 5 What is the slope of the line passing through (1, 4) with a x-intercept of -5?

$x_1, y_1$   $(-5, 0)$   
 $x_2, y_2$

$$M = \frac{y_2 - y_1}{x_2 - x_1} = \frac{0 - 4}{-5 - 1} = \frac{-4}{-6} = \frac{2}{3}$$

Ex 6 What is the slope of the line passing through  
 (4, -3) with a y-intercept of -7?

$x_1, y_1$

$(0, -7)$   
 $x_2, y_2$

$$M = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-7 - (-3)}{0 - 4} = \frac{-4}{-4} = 1$$

