

## Sec 2.3.2- Graphing Linear Equations

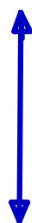
Graph-

$$y = 2$$



$y = \#$  is horizontal

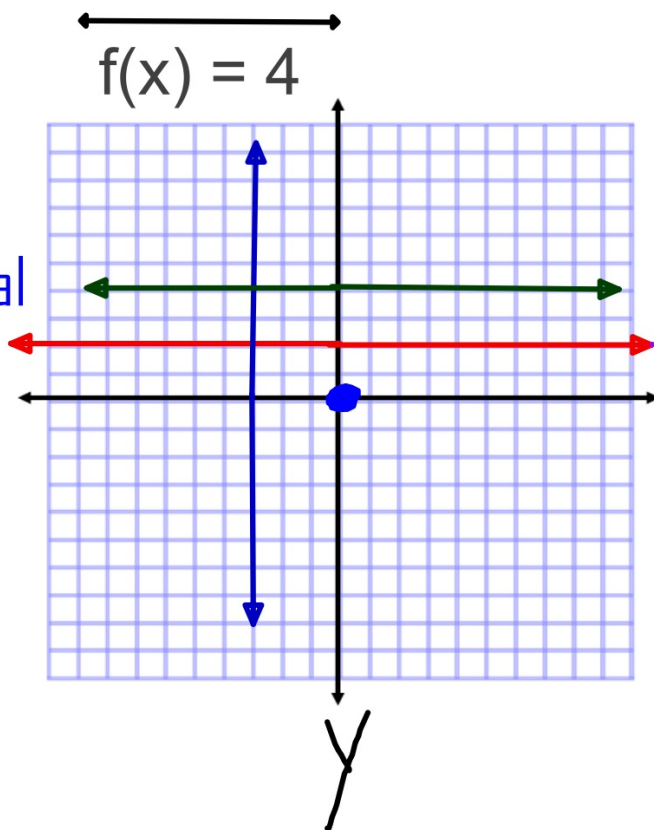
$$x = -3$$



$x = \#$  is vertical

$f(x) = y$  so also a horizontal line, but at 4

$$f(x) = 4$$



Rewrite in slope-intercept form and determine the slope, y-intercept and graph.

$$2x + y - 4 = 0$$

$$y = -2x + 4$$

↑ slope ↑ y-int

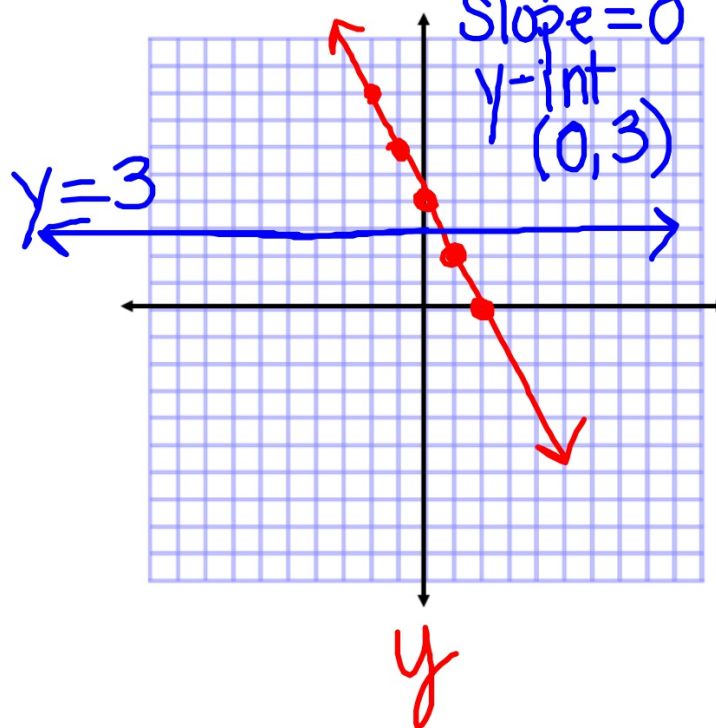
$$m = \frac{-2}{1} \begin{matrix} \downarrow \\ \rightarrow \end{matrix}$$

$$5y - 15 = 0$$

$$\rightarrow 5y = 15$$

$$y = 3$$

Slope = 0  
y-int (0, 3)

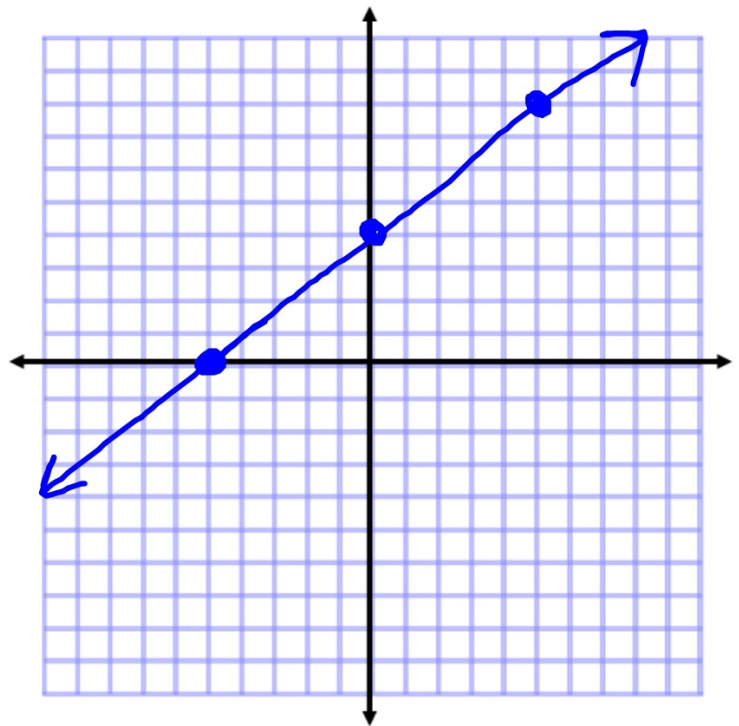


$$-4x + 5y - 20 = 0$$

$$\frac{5y = 4x + 20}{5}$$

$$y = \frac{4}{5}x + 4$$

↑ Slope      ↑ y-int



Use intercepts to graph-

$$6x - 2y - 18 = 0$$

y-int  $\rightarrow$  Let  $x = 0$

$$6(0) - 2y - 18 = 0$$

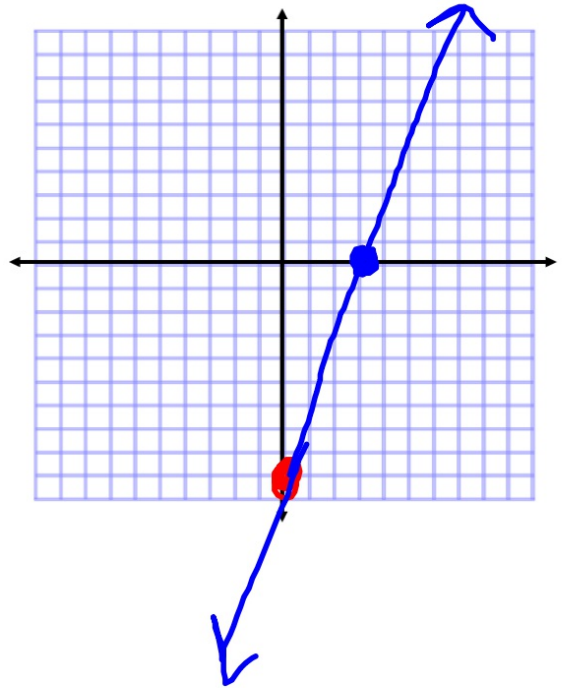
$$-2y - 18 = 0$$


$$y = -9$$

x-int  $\rightarrow$  Let  $y = 0$

$$6x - 18 = 0$$

$$x = 3$$



Find the value of  $y$  if the line through  $(3,y)$  and  $(1,4)$  has a slope of  $-3$ . 

$$m = \frac{y - y}{x - x}$$

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

$$6 = 4 - y$$

$$2 = -y$$

$$-2 = y$$

Suggested Practice  
Section 2.3  
page 255

49-72 odds, 80,83,85,86

49-72

See  
text

↑ AA13 ↓

**photo of  
solutions  
on  
website**

80. -6

83 5

85  $m_1 m_3 m_2 m_4$

86  $b_2 b_1 b_4 b_3$

