

4.7. Graphing Lines with Slope.

Feb. 12, 2007

on Graph Paper!

Slope-Intercept Form

$$y = mx + b$$

Slope $\rightarrow$ m $\rightarrow$ $(0, b)$
 $\rightarrow$ y -int.

$$m = \text{slope} = \frac{\text{rise}}{\text{run}} = \frac{\text{change in } y}{\text{change in } x} = \frac{y_2 - y_1}{x_2 - x_1}$$

Recall: $2x - y = -3$ → Standard form

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

Get y by itself

$$y = 2x + 3$$

$m = \text{slope} = \frac{\text{rise}}{\text{run}}$
 $= \frac{\text{change in } y}{\text{change in } x} = \frac{y_2 - y_1}{x_2 - x_1}$

Identify the Slope

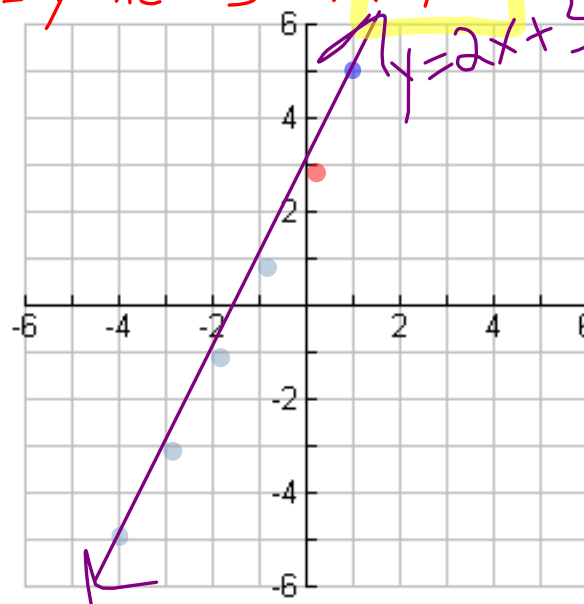
$$m = \text{slope} = \frac{\text{rise}}{\text{run}} = 2 = \frac{2}{1}$$

Identify the y-int.

$$b = y\text{-int} = 3 \Rightarrow (0, 3)$$

Give the Direction of the Slope

up 2
Right 1

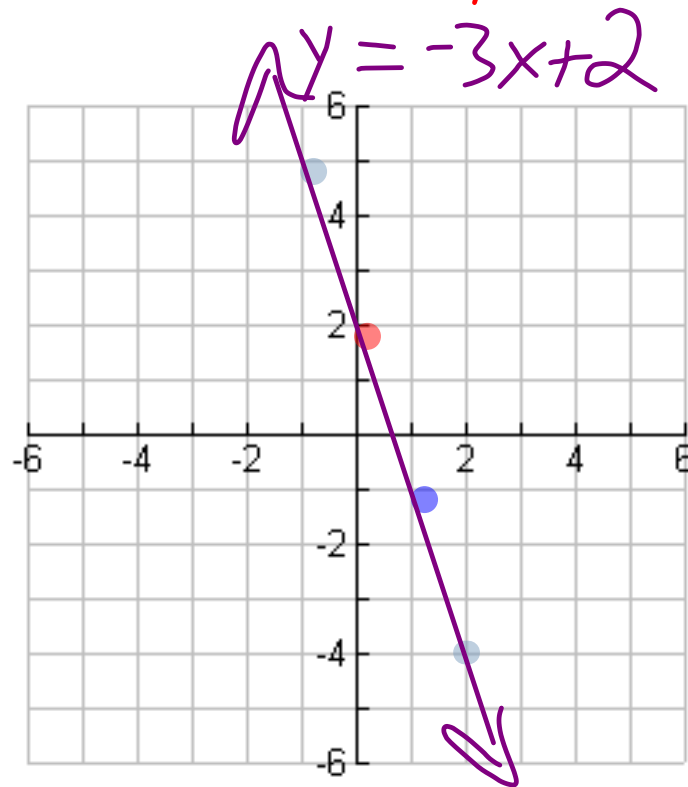


Graph: $y = -3x + 2$

$m = \text{slope} = \frac{\text{rise}}{\text{run}} = \frac{\text{change in } y}{\text{change in } x} = \frac{y_2 - y_1}{x_2 - x_1}$

$m = \text{slope} = \frac{\text{rise}}{\text{run}} = -3 = -\frac{3}{1}$ Down 3
Right 1

$b = y\text{-int} = 2 \Rightarrow (0, 2)$



Graph : $y = -\frac{2}{3}x + 2$

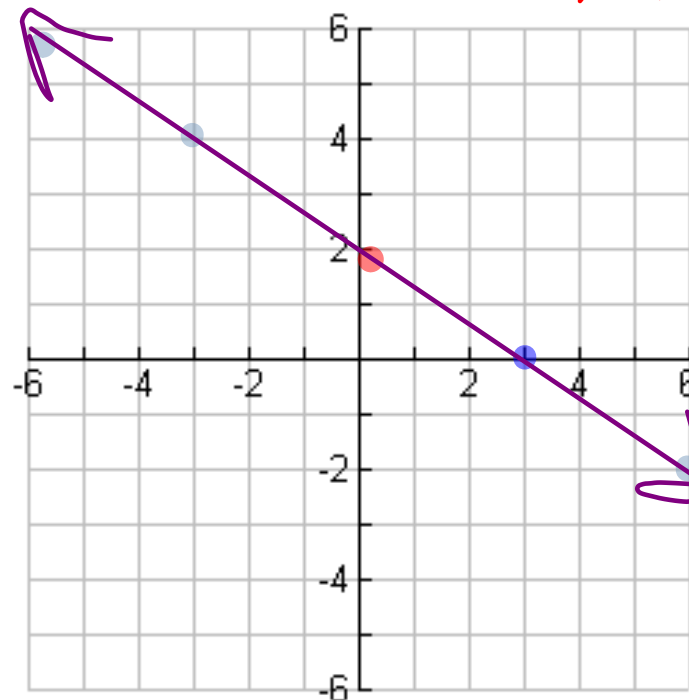
$y = mx + b$

$m = \text{slope} = \frac{\text{rise}}{\text{run}} = \frac{\text{Change in } y}{\text{Change in } x} = \frac{y_2 - y_1}{x_2 - x_1}$

$m = \text{slope} = \frac{\text{rise}}{\text{run}} = -\frac{2}{3}$

Down 2
Right 3

$b = y\text{-int.} = 2 \Rightarrow (0, 2)$



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

O.T.L.

① pg 246 : 1-10 (all)

11, 12, 14, 15, 35, 37, 39, 41

Same
Coord. Plans.

Chapter 4 Test Friday!