

# 5.1. Slope-Intercept form

Graph Paper,  
But Not Required

Feb. 27, 2007

Recall: The Slope-Intercept form of the equation of a line is:

$$y = mx + b$$

- generic equation

where  $m = \text{slope}$

$b = \text{y-int.}$



Write the equation of the line  
with  $\text{slope} = 3$  +  $y\text{-int} = 7$

$$y = mx + b$$
$$y = 3x + 7$$

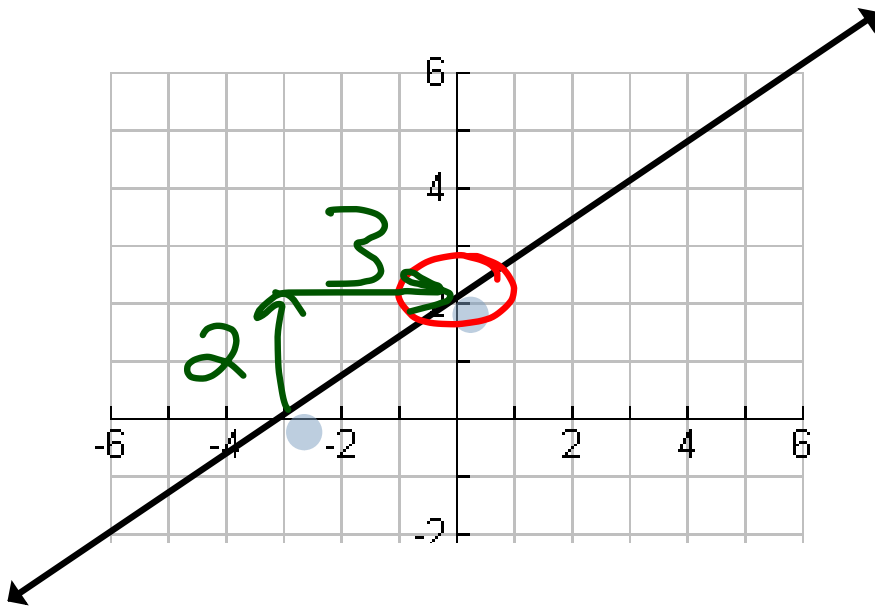
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w/  $y\text{-int} = -8$  +  $m = \frac{5}{2}$

$$y = mx + b$$
$$y = \frac{5}{2}x + (-8)$$
$$y = \frac{5}{2}x - 8$$

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Write the equation of the line:



We know Slope Intercept  
 $y = mx + b$

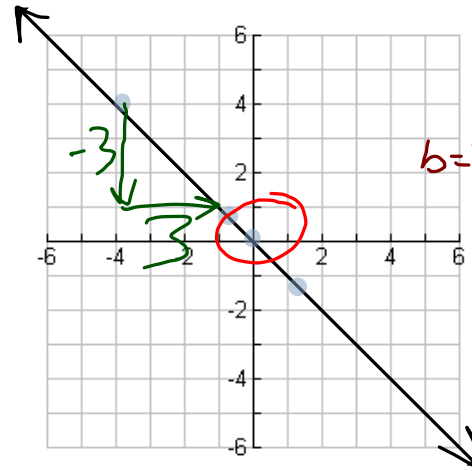
We need to know...

$$\text{Slope} = \frac{2}{3}$$

$$y\text{-int.} = 2$$

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

Write the equation of the line:



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

$$b = \text{y-int} = 0$$

$$y = mx + b$$

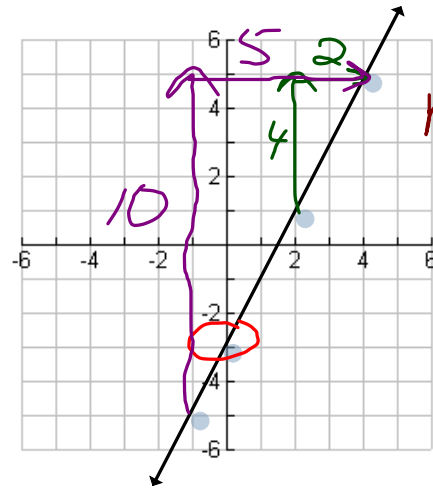
$$y = -1x + 0$$

$$\underline{\underline{y = -1x}}$$

or

$$\underline{\underline{y = -x}}$$

Write the equation of the line:



$$y = mx + b$$

$$m = \text{slope} = \frac{4}{2} = 2$$

$$b = y\text{-int} = -3$$

$$y = mx + b$$

$$y = 2x + 3$$

$$\underline{\underline{y = 2x - 3}}$$

O.T.L.

①

Pg 272: 1-3, 13, 16,

18-25(a), 34-39(a)

22-25: write the slope, y-int, &  
the eqn of  
the line.