

Common Math 10Lesson 6.4 ~ Slope-Intercept Form of the Equation for a Linear Function

Slope-Intercept form is the first of three forms of an equation for a linear function that we will look at.

$$y = mx + b$$

↑
↑
 slope y - intercept

Example #1: Write an equation for a linear function with slope $-\frac{7}{3}$ and y-intercept 5.

$$m = -\frac{7}{3}$$

$$b = 5$$

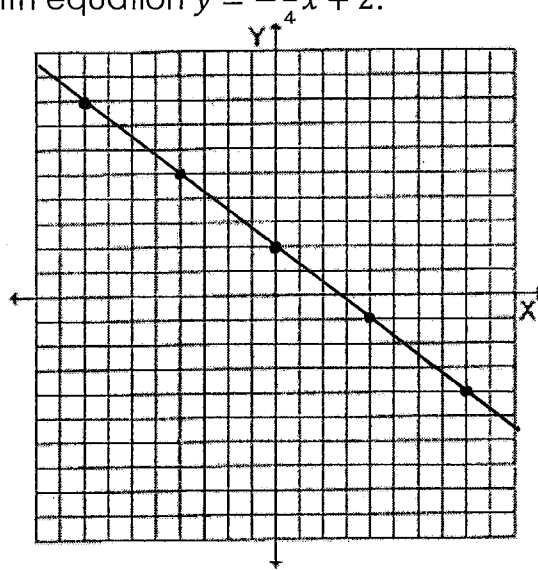
$$y = mx + b$$

$$y = -\frac{7}{3}x + 5$$

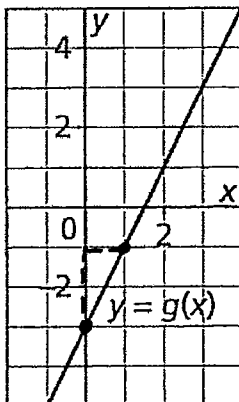
Example #2: Graph the linear function with equation $y = -\frac{3}{4}x + 2$.

$$m = -\frac{3}{4} = \frac{\text{rise}}{\text{run}}$$

$$b = 2$$



Example #3: Write an equation to describe this function.



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

$$b = -3$$

$$y = mx + b$$

$$y = 2x - 3$$