

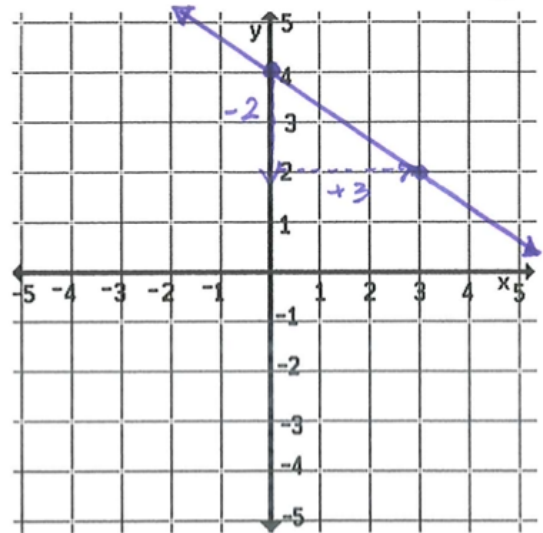
## How to Graph an Equation in Slope-Intercept Form

Example:  $y = -\frac{2}{3}x + 4$

**Step 1:** Plot the y-intercept  
(in this case (0, 4))

**Step 2:** Use the slope to find the next point on the line from the y-intercept. Remember slope =  $\frac{\Delta y}{\Delta x}$   
(in this case  $\frac{\Delta y}{\Delta x} = \frac{-2}{3}$  which means down 2 and 3 to the right.)

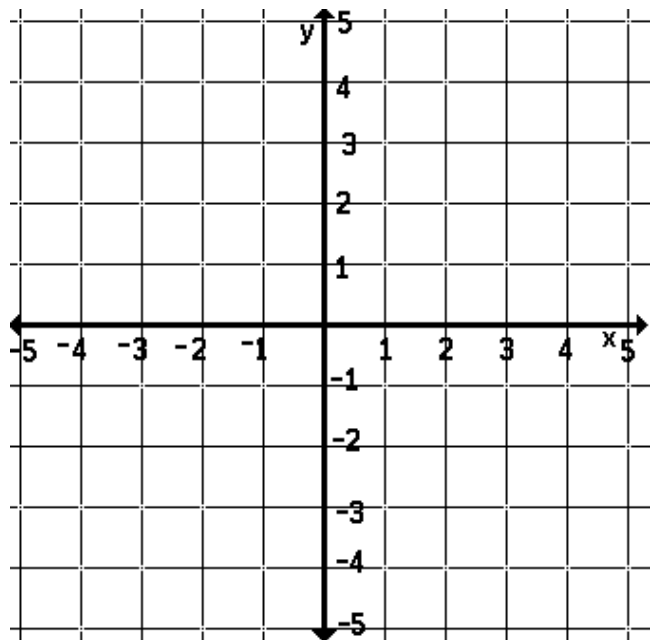
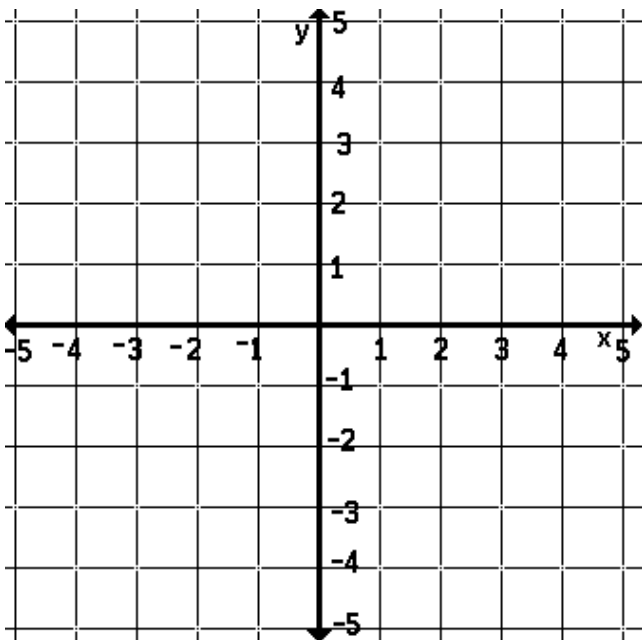
**Step 3:** Draw a line **through** both points with a ruler. Don't forget arrows!



Practice Graphing:

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

$$y = -3x + 4$$



## How to Graph an Equation in Standard Form

Example:  $5x + 2y = -10$

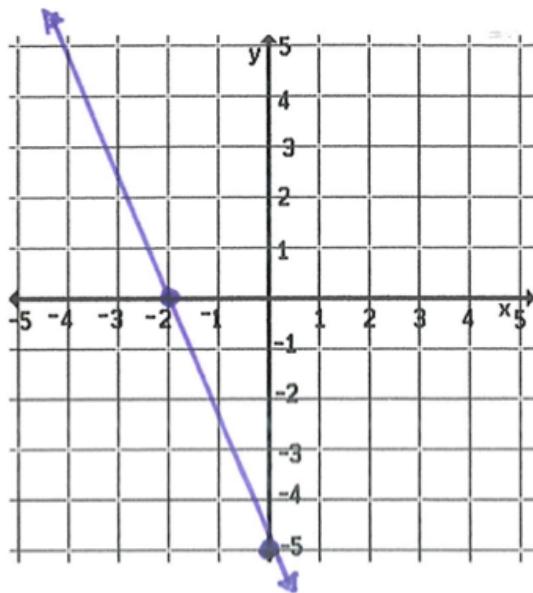
**Step 1:** Find the y-intercept by substituting zero in for x and solving for y.  
(in this case  $(0, -5)$ )

$$\begin{aligned}5x + 2y &= -10 \\5(0) + 2y &= -10 \\2y &= -10 \\y &= -5\end{aligned}$$

**Step 2:** Find the x-intercept by substituting zero in for y and solving for x.  
(in this case  $(-2, 0)$ )

$$\begin{aligned}5x + 2y &= -10 \\5x + 2(0) &= -10 \\5x &= -10 \\x &= -2\end{aligned}$$

**Step 3:** Draw a line **through** both points with a ruler. Don't forget arrows!



Practice Graphing:

$$3x - 2y = 6$$

$$3x + 6y = 12$$

