

## How to Graph an Equation in Standard Form

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

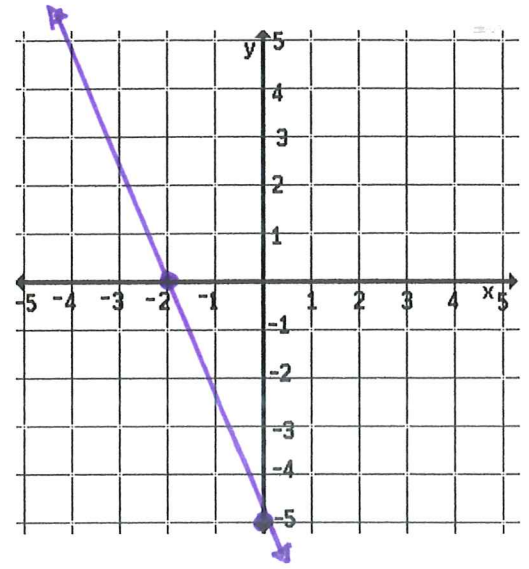
**Step 1:** Find the y-intercept by substituting zero in for x and solving for y.  
(in this case  $(0, -5)$ )

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

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

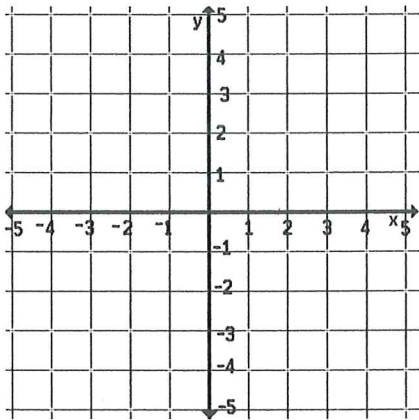
$$\begin{aligned}5x + 2y &= -10 \\5x + 2(0) &= -10 \\5x &= -10 \\x &= -2\end{aligned}$$

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

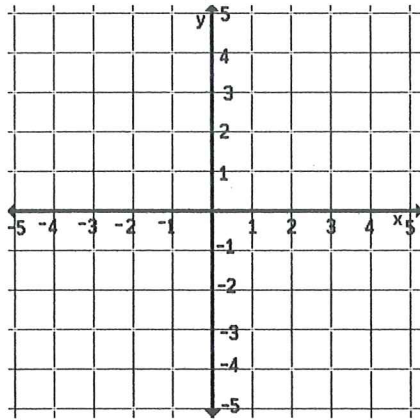


Practice Graphing:

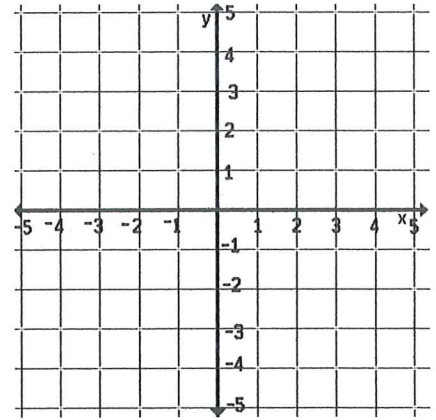
$$3x - 2y = 6$$



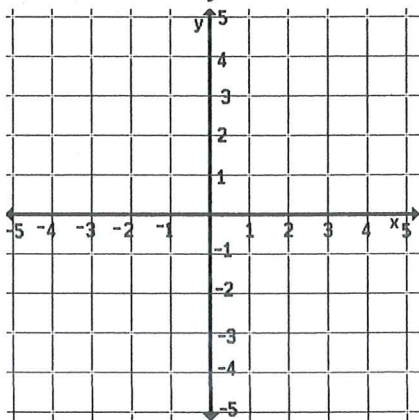
$$3x + 6y = 12$$



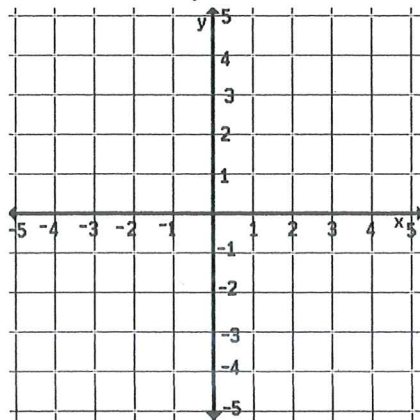
$$x - 2y = -4$$



$$4x - 3y = 12$$



$$3x - 5y = -15$$



$$3x + 2y = 6$$

