Warm Up- Solve for y

1. $2y - 4 = 6$

$+4 \quad +4$

$\frac{2y}{2} = \frac{10}{2}$

$y = 5$

2. $6 = 2 + 4y$

$-2 \quad -2$

$\frac{4}{4} = \frac{4y}{4}$

$y = 1$

3. $5 = -4 - 3y$

$+4 \quad +4$

$\frac{9}{-3} = \frac{-3y}{-3}$

$y = -3$

Notes-

Standard Form of a Linear Equation is:

$ax+by=c$

$4x+2y=6$

We know how to graph lines in slope intercept form, which is $y=mx+b$

$y=-2x+3$

Example of Converting From Standard Form to Slope Intercept Form

$4x + 2y = 6$

1. $4x + 2y = 6$
2. $4x + 2y = 6$

$-4x \quad -4x$

$\frac{2y}{2} = \frac{-4x}{2} + \frac{6}{2}$

3. $y = -2x + 3$

1. We are given an equation in standard form. You want to solve for y. (highlight only the letter y)
2. Move the x term to the other side using the opposite sign
3. Divide everything in the equation by the number in front of the y

Practice

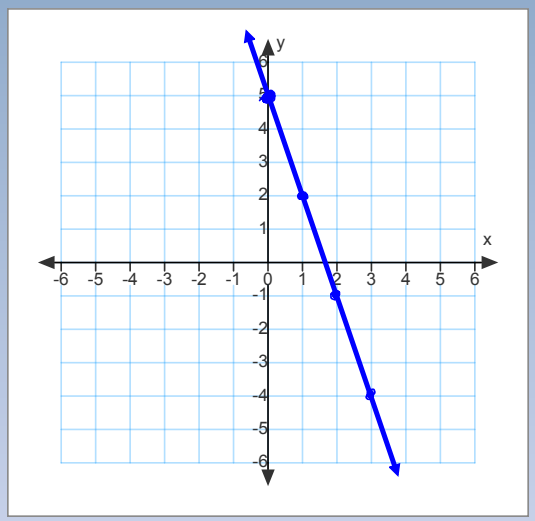
Ex 1:

$$9x + 3y = 15$$

$$-9x \qquad -9x$$

$$\frac{3y}{3} = \frac{-9x}{3} + \frac{15}{3}$$

$$y = -3x + 5$$



Practice

Ex 2:

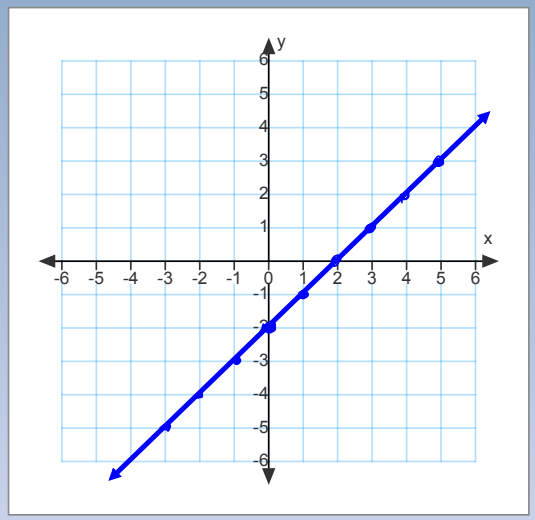
$$4x - 4y = 8$$

$-4x \quad -4x$

$$-4y = -4x + 8$$

$$\frac{-4y}{-4} = \frac{-4x}{-4} + \frac{8}{-4}$$

$$y = x - 2$$



Practice

Ex 3:

$$15x - 5y = -10$$

$$-15x \qquad -15x$$

$$\frac{-5y}{-5} = \frac{-15x}{-5} - \frac{10}{-5}$$

$$y = 3x + 2$$