

# Rewriting Equations in Slope-Intercept Form

Name: \_\_\_\_\_

Learning Target: To re-write linear equations in  $y = mx + b$  form (8.EE.6)

The equation of a line written in the form  $y = mx + b$  is said to be in slope-intercept form. To write an equation in slope-intercept form, **you need to get y by itself.**

Example: Rewrite the equation  $4x - 2y = 12$  in slope-intercept form.

$$\begin{array}{r} 4x - 2y = 12 \\ -4x \quad -4x \\ \hline -2y = -4x + 12 \\ -2 \quad -2 \quad -2 \\ \hline y = 2x - 6 \end{array}$$

1. Subtract  $4x$  from each side to isolate  $y$ .
2. Simplify.
3. Divide each term by  $-2$  to get  $y$  by itself.
4. Simplify.

Rewrite each of the following equations in  $y = mx + b$  form. Show each step!

1)  $x + y = -15$

2)  $-2x + y = 1$

3)  $y - 4x = 8$

4)  $y - 4 = -3x - 9$

5)  $y - 8 = -\frac{1}{2}x - 2$

6)  $2y = -1x - 8$

7)  $3y = 2x + 15$

8)  $4x + 2y = -6$

9)  $6x + 2y = 10$

10)  $12x + 4y = 8$