Graphing Equations — Quick Reference

Slope = rise / run

- Calculate the slope by choosing two points on the line.
- Count the rise (how far up or down to get to the next point?) This is the numerator.
- Count the run (how far left or right to get to the next point?) This is the denominator.
- Write the slope as a fraction.

run = 5

rise = 3
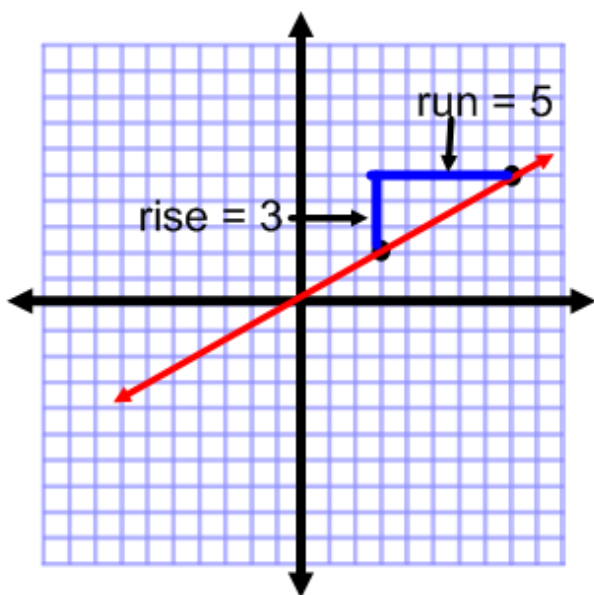
Slope = 3/5

** Read the graph from left to right. If the line is **falling**, then the slope is **negative**.
If the line is **rising**, the slope is **positive**.

When counting the rise and run, if you count **down or **left**, then the number is **negative**. If you count **up** or **right**, the number is **positive**.

Slope Intercept Form

$$y = mx + b$$
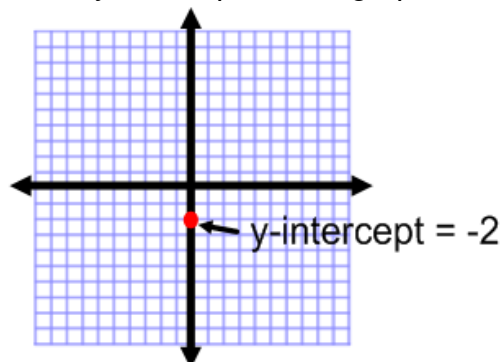
Slope   Y-intercept

Graphing Using Slope Intercept Form

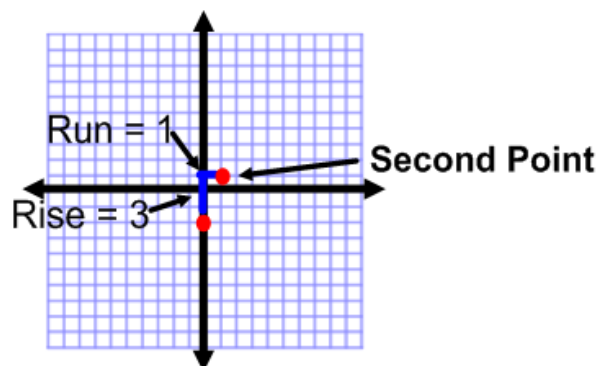1. Identify the slope and y-intercept in the equation.

$$y = 3x - 2$$

Slope   Y-intercept

2. Plot the y-intercept on the graph.

y-intercept = -2

3. From the y-intercept, count the rise and run for the slope. Plot the second point.

Run = 1

Rise = 3

Second Point

4. Draw a line through your two points.