## Lesson 9

## Graphing Linear Equations © 2014 Kuta Software LLC. All rights reserved.

1) There are many ways to graph the equation of a line. In this lesson we will focus on two methods.

The first method uses the formula y = mx + b. In this formula m is the slope and b is the y - intercept. Steps to follow . . .

- 1. Use this method when you can get y by itself.
- 2. Identify the values for the slope and y intercept from the equation
- 3. Always plot the y intercept first
- 4. From the y intercept, apply the slope
- 5. connect the points to graph the line

The second method requires you to find the x - intercept and the y - intercept.

Steps to follow . . .

- 1. Use this method when the equation looks like Ax + By = C
- 2. Substitute 0 in for x, solve for y
- 3. This is the y intercept, plot it on the y axis
- 4. Substitute 0 in for y, solve for x
- 5. This is the x intercept, plot is on the x axis
- 6. Connect the two points to graph the line

## Sketch the graph of each line.







4) 2x + y = 4

5) x = -3



