Lesson 6 Graphing Linear Functions

Three Methods of Graphing
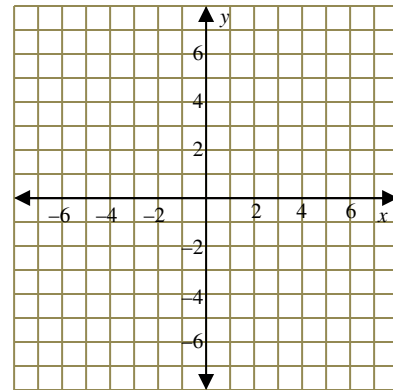
1) Table of Values
2) Intercepts
3) Slope Y-Intercept

1) Table of Values

Example 1

Sketch the graph of $y + 2x = 1$ using a table of values.

x	$y = -2x + 1$	y
–2		
–1		
0		
1		
2		

Steps
- Select values for "x", try to choose both positive and negative values.
- Substitute x into the equation and solve for y.
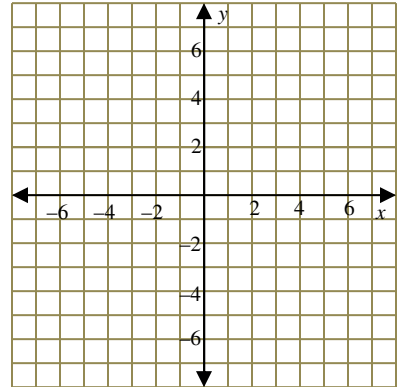- Plot the points on a graph (**Remember to include a scale, labels and arrows**).

2) **Intercepts**

Recall:
- x-intercept is the value of x when $y = 0$.

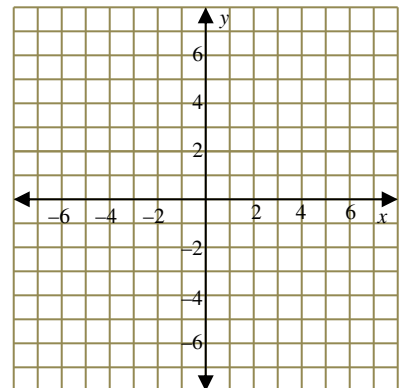- y-intercept is the value of y when $x = 0$.

Example 1

Sketch the graph of $3x - 2y = 6$ using the intercept method of graphing.

Example 2
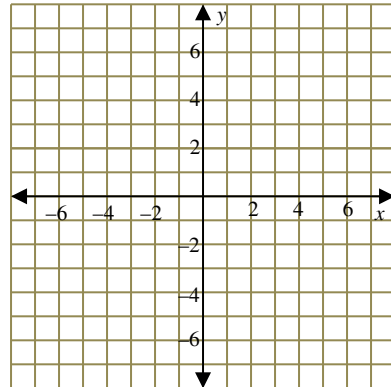
Sketch the graph of $3x + 4y - 12 = 0$ using the intercept method.

3) Slope Y-Intercept

Practice Solving for *y* (Change to *y* = *mx* + *b* form)

a) $3x + 4y = 8$ b) $4y = 6x - 8$ c) $3y + 6x - 3 = 0$

Example 1

Sketch the graph of $y = \frac{2}{3}x - 4$, using the slope *y*-intercept method.

Example 2

Sketch the graph of $x - 2y = 2$, using the slope *y*-intercept method.

Assignment: Pg. 362 #7