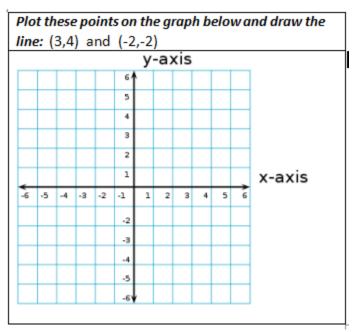
## Beginning Algebra ~ Lesson 18-B

Work the following examples as you listen to the recorded lecture.

## **Graphing Lines by Point-Plotting**

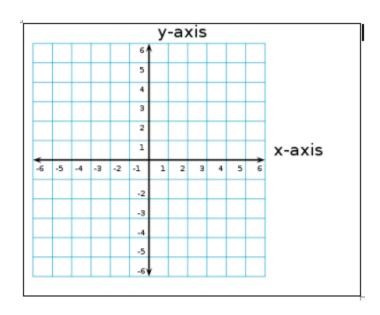
It takes only 2 points to draw a line on the rectangular coordinate system. For example, plot the points (3,4) and (-2,-2) on the graph below, and then draw a line that goes through both.



To graph linear equations, we simply need 2 points that work for the equation.

Example 1: y = -4x

X	y



## Lesson 18-B, page 2

## Remember....

To graph a line by Point-Plotting:

- 1. Pick a value for either  $\mathbf{x}$  or  $\mathbf{y}$ .
- 2. Solve the equation for the unknown value.
- 3. Plot the point, and repeat these steps for another value.
- 4. Hint: pick numbers that make the equation easy to solve.

Example 2: y = -x + 2

X	y
	l

				(is	-a>	y.						
						١.	61					
							5					
	$\neg$						4					
							3					
							2					
x-axis							1					
	6	5	4	3	2	1	-1	-2	-3	-4	-5	6
							-2					
							-3					
							-4					
							-5					
						,	-61					

Example 3: x + 3y = 6

X	y

