## MAT0028 ~ 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: $y=-4 x$



## 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: $y=-x+2$



Example 3: $x+3 y=6$



