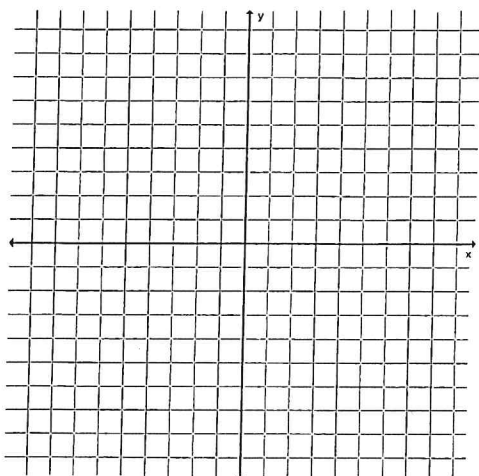## Systems of Linear Inequalities

·Graphing systems of Linear Inequalities is very similar to equations, but we have to **shade the appropriate region** on the graph. **BE SURE TO SOLVE FOR Y 1ST!** *(then find a y-int and slope. Shade your answer the darkest color).*
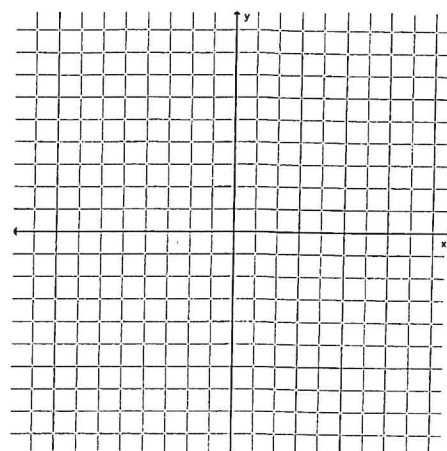
Example 1

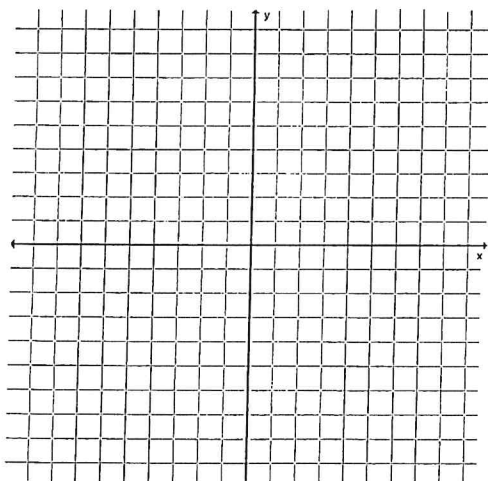$$\begin{cases} y \le 3 \\ y \ge -x + 1 \end{cases}$$

Example 2

$$\begin{cases} 2x + y \ge 2 \\ 2x + y < 4 \end{cases}$$
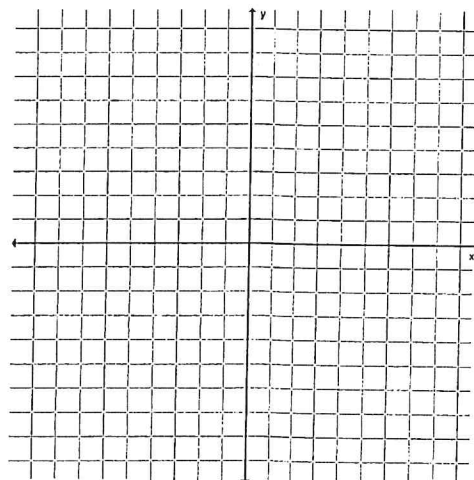
Example 3   (remember, x = # is a vertical line)

$$\begin{cases} x > -3 \\ -x - 3y \le 6 \end{cases}$$

Example 4   (see if you can shade 3 lines)

$$y < 6 \qquad x > 1$$
$$y > x + 3$$

Example 5

$$-5x + y < -2$$

$$6x + y > 2$$