

# 11/28/12 Graphing Systems of Linear Inequalities

Solve by graphing

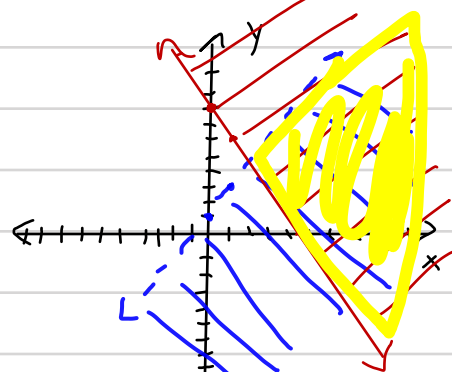
**Example**

①

$$2x + y \geq 8 \rightarrow y \geq -2x + 8$$

$$2x - y > 1 \rightarrow -y > -2x + 1$$

$$\begin{array}{c} -1 \quad -1 \quad -1 \\ \hline y < 2x + 1 \end{array}$$



① get into  $y = mx + b$  form

② graph and shade.

③ Overlapping region is your answer

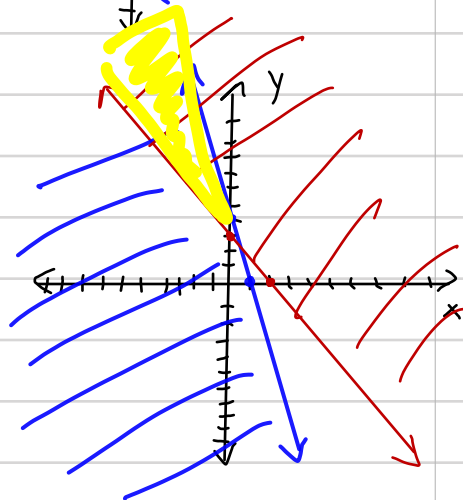
②

$$3x + 2y \geq 6 \rightarrow \frac{2y \geq -3x + 6}{2}$$

$$4x + y \leq 4$$

$$\frac{y \geq -\frac{3}{2}x + 3}{2}$$

$$y \leq -4x + 4$$



③

$$y \geq x + 1$$

$$y < -x + 1$$

