

INEQUALITIES: STANDARD -> SLOPE-INTERCEPT

$$\mathbf{Ax + By < C \quad -> \quad y < mx + b}$$

1. GET "Y" BY ITSELF

2. WATCH OUT FOR NEGATIVES

EXAMPLE:

WOULD THESE TWO BE THE SAME?

$$2x - y \leq 1 \quad \& \quad y \leq 2x - 1$$

$$\begin{array}{r} -2x \quad -2x \\ \hline -y \leq \frac{-2x+1}{-1} \\ \hline y \geq 2x-1 \end{array}$$

They
Are Not
The

$$\boxed{y \geq 2x - 1} \text{ Same}$$

When graphing linear inequalities recall.

$>$ Draw a dashed line, and shade the area above the line.

$<$ Draw a dashed line, and shade the area below the line.

\geq Draw a Solid line, and shade the area above the line.

\leq Draw a Solid line, and shade the area below the line.

EXAMPLE:

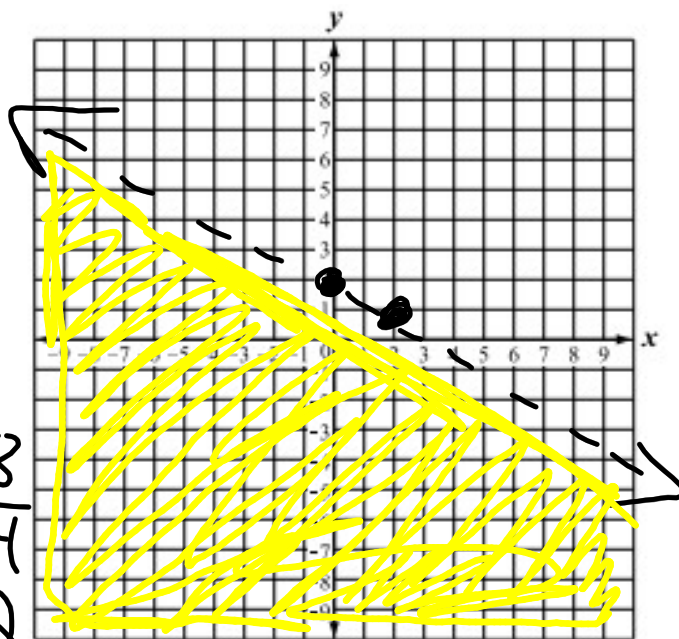
GRAPH

$$2x + 4y < 8$$

$$-2x \quad -2x$$

$$\frac{4y}{4} < \frac{-2x}{4} + \frac{8}{4}$$

$$y < -\frac{1}{2}x + 2$$



POINT IN SOLUTION SET: (0, 0)