

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.

1
Dashed
or
Solid



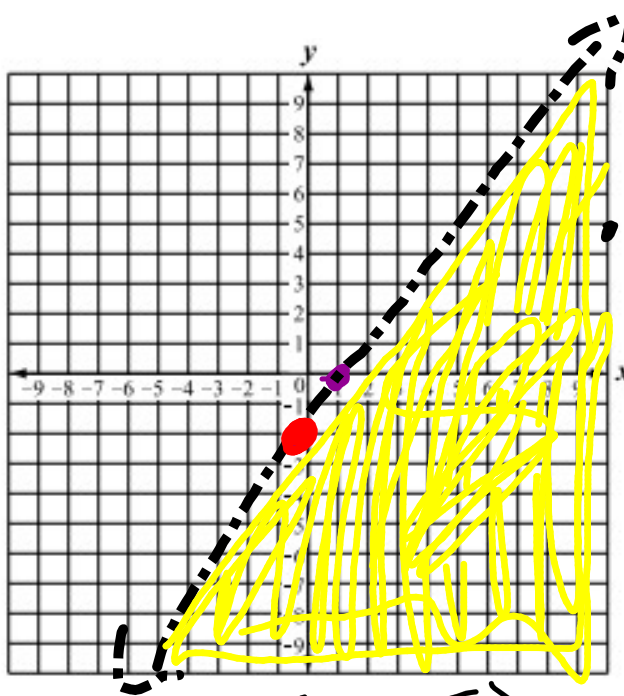
2
Above
or
Below

EXAMPLE:

GRAPH

$y < 2x - 2$

m *b*
 $m = 2$ $b = -2$
 rise / run



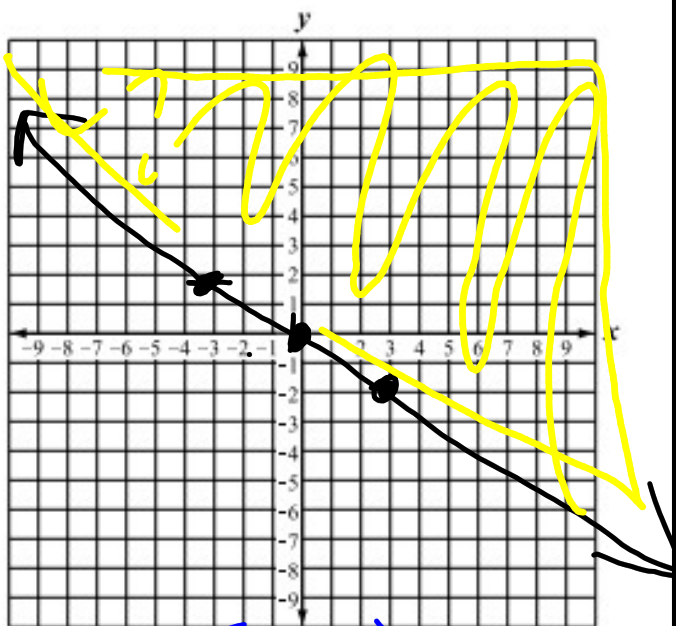
POINT IN SOLUTION SET: (5, -5)

EXAMPLE:

GRAPH

$$y \geq -\frac{2}{3}x + 0$$

solid
above



POINT IN SOLUTION SET: (2,1)

INEQUALITIES: STANDARD -> SLOPE-INTERCEPT

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

1. GET "Y" BY ITSELF

2. WATCH OUT FOR NEGATIVES

EXAMPLE:



CONVERT TO SLOPE INTERCEPT

$$\begin{array}{r}
 8x - 4y \leq 16 \\
 \hline
 -8x \quad \quad -8x \\
 \hline
 -4y \leq -8x + 16 \\
 \hline
 -4 \quad \quad -4 \quad \quad -4
 \end{array}$$

1. $m = 2$
2. $b = -4$
3. Solid
4. Above

$$y \geq 2x - 4$$