

# Example 3

Graph  $6x + 3y \geq -9$

# Example 4

Graph  $2(-3x + y) \leq -8$

# Example 1

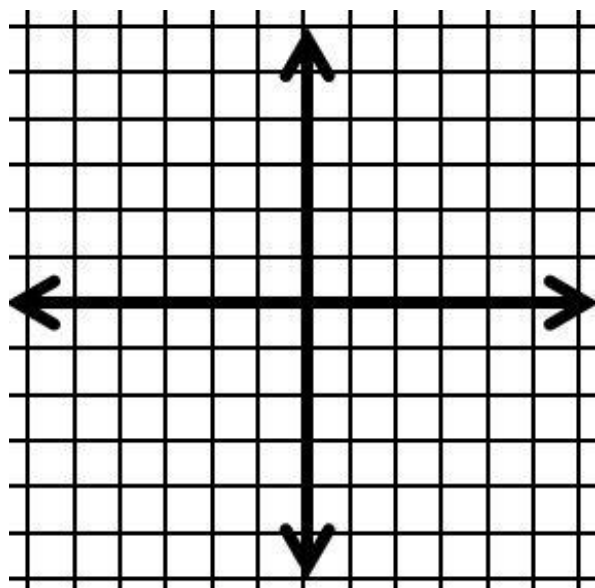
Graph  $-4x + y > -3$

# Example 2

Graph  $x + 2y < 4$

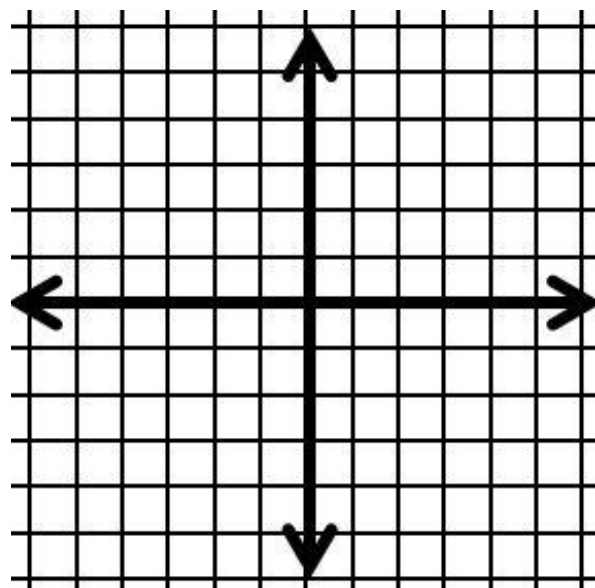
Example 1:

Graph  $-4x + y > -3$



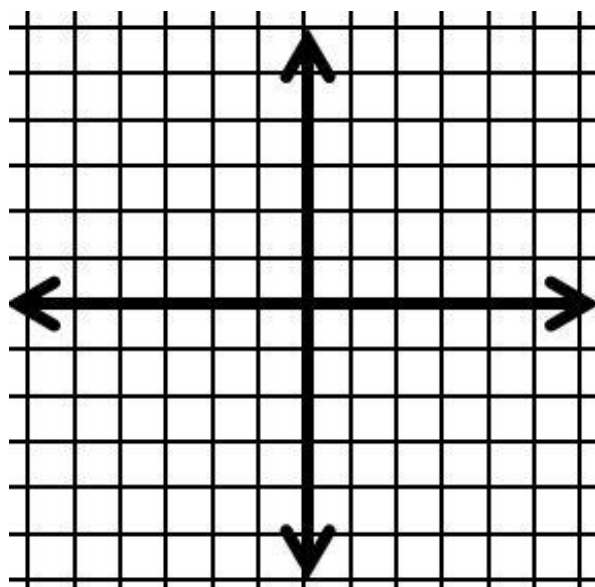
Example 2:

Graph  $x + 2y < 4$



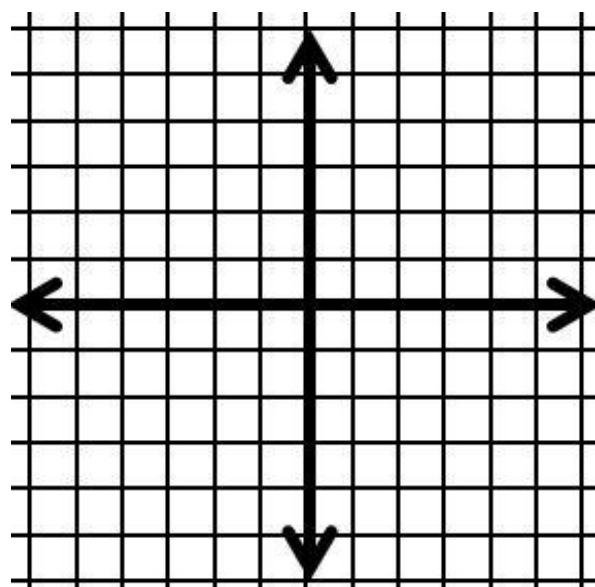
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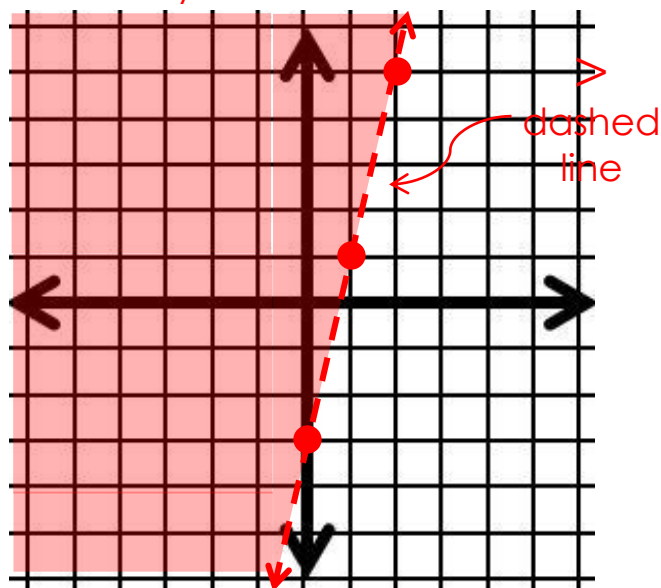
Graph  $x + 2y < 4$

## Example 1:

Graph  $-4x + y > -3$

$$\begin{array}{r} +4x \qquad +4x \\ \hline y > 4x - 3 \end{array}$$

> Shade ABOVE  
the boundary line

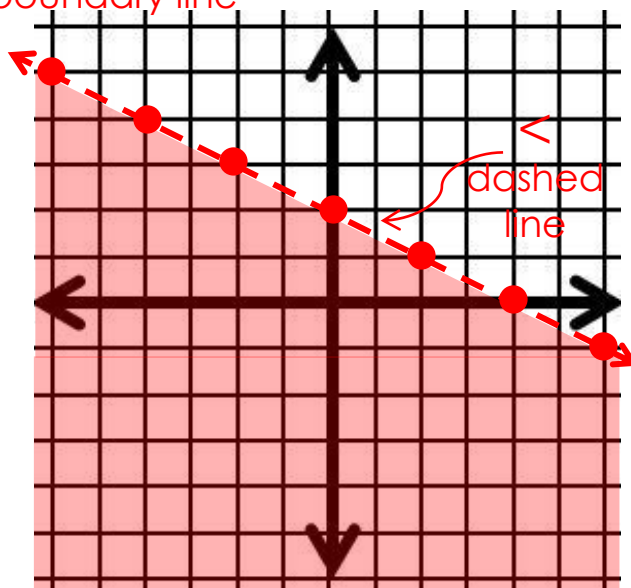


## Example 2:

Graph  $x + 2y < 4$

$$\begin{array}{r} -x \qquad -x \\ \hline \frac{2y}{2} < \frac{-x}{2} + \frac{4}{2} \\ \hline y < \frac{-1}{2}x + 2 \end{array}$$

< Shade BELOW  
the boundary line

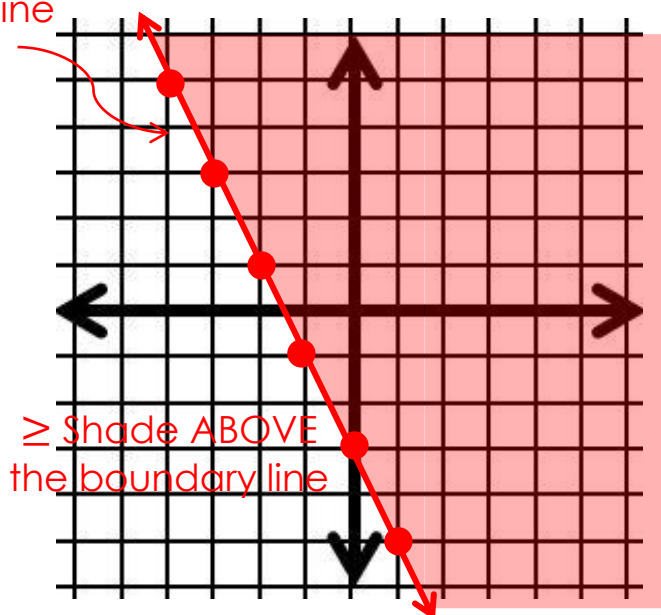


## Example 3:

Graph  $6x + 3y \geq -9$

$$\begin{array}{r} -6x \qquad -6x \\ \hline \frac{3y}{3} \geq \frac{-6x - 9}{3} \\ \hline y \geq -2x - 3 \end{array}$$

$\geq$   
solid  
line

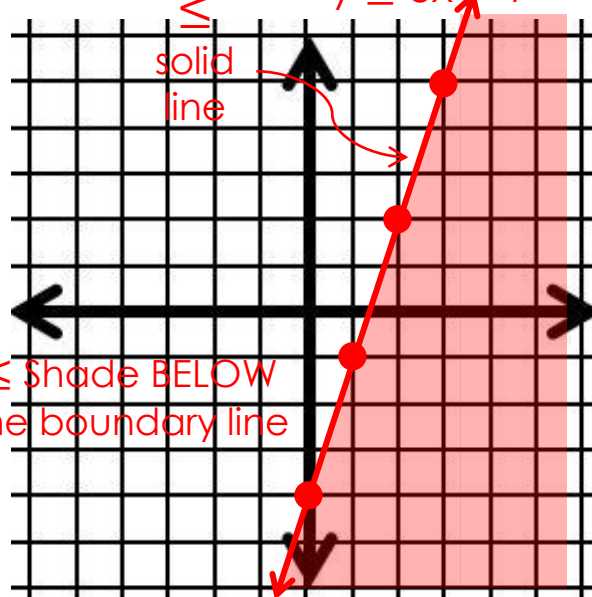


## Example 4:

Graph  $2(-3x + y) \leq -8$

$$\begin{array}{r} -6x + 2y \leq -8 \\ +6x \qquad +6x \\ \hline 2y \leq 6x - 8 \\ \hline y \leq 3x - 4 \end{array}$$



$\leq$   
solid  
line  
  
≤ Shade BELOW  
the boundary line



Step 1: Write the inequality in slope-intercept form.

Step 2: Graph the line.  
(start at the y-intercept 'b', and use the slope 'm' to plot additional points)

Step 3: Determine whether the boundary line is solid or dashed.

$< >$  DASHED   
 $\leq \geq$  SOLID 



Step 4: Determine which region should be shaded.

$< \leq$  BELOW the Boundary Line  
 $> \geq$  ABOVE the Boundary Line

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Directions:

Print pages 1 & 2 so that the text is facing in opposite directions (my printer has the option to print front to back & flip pages on the short edge).

Fold the top and bottom in to the solid line at the center. Cut along the dotted lines to create the four tabs.

NOTE: If the pages don't line up properly try using a different printer. I have the best luck printing on my personal printer. Sometimes if I print the pages at school, the printer alters the margins and the lines don't end up matching up like they are supposed to!

The final product should look like this:

