

Example 3

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

Example 4

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

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Example 1

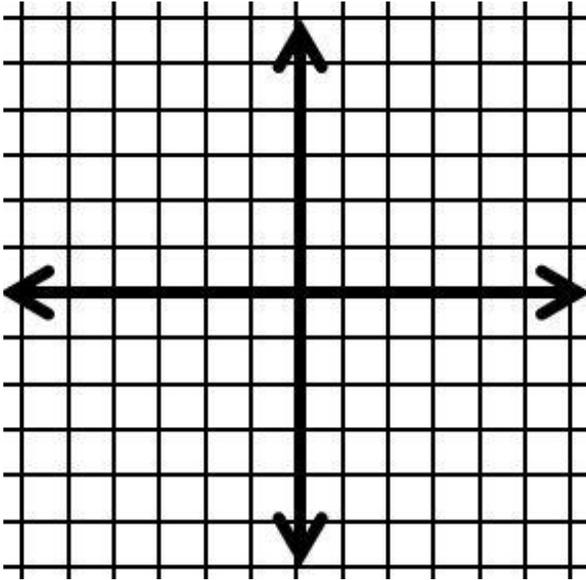
Graph $-4x + y > -3$

Example 2

Graph $x + 2y < 4$

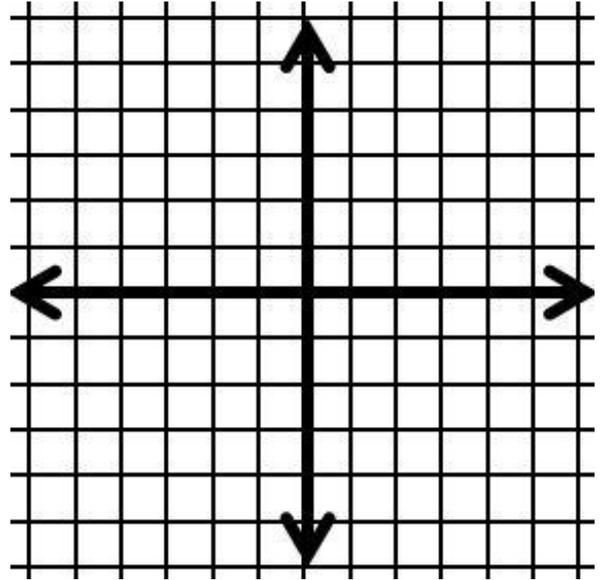
Example 1:

Graph $-4x + y > -3$



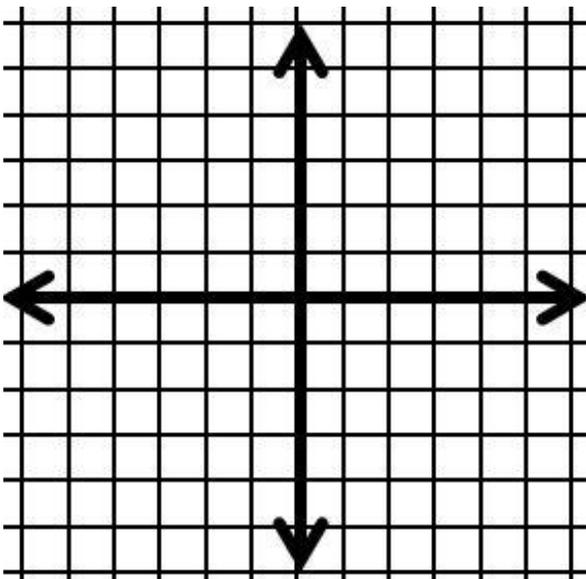
Example 2:

Graph $x + 2y < 4$



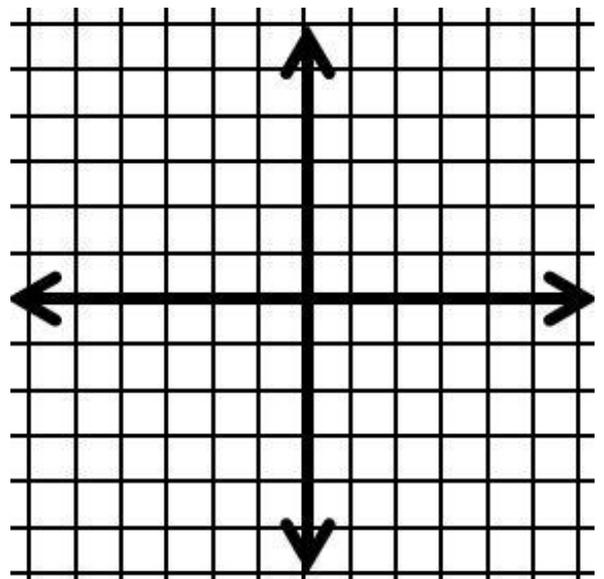
Example 3:

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Example 1

Graph $-4x + y > -3$

Example 2

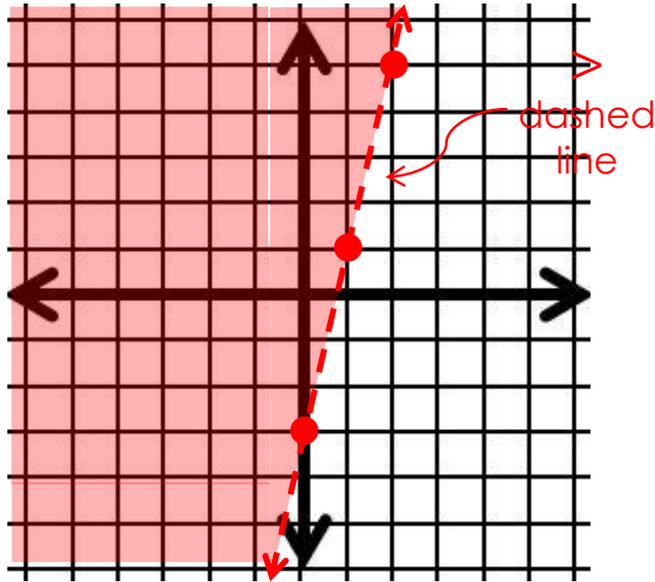
Graph $x + 2y < 4$

Example 1:

Graph $-4x + y > -3$

$$\frac{\begin{matrix} +4x & & +4x \\ \hline y > 4x - 3 \end{matrix}}$$

> Shade ABOVE the boundary line

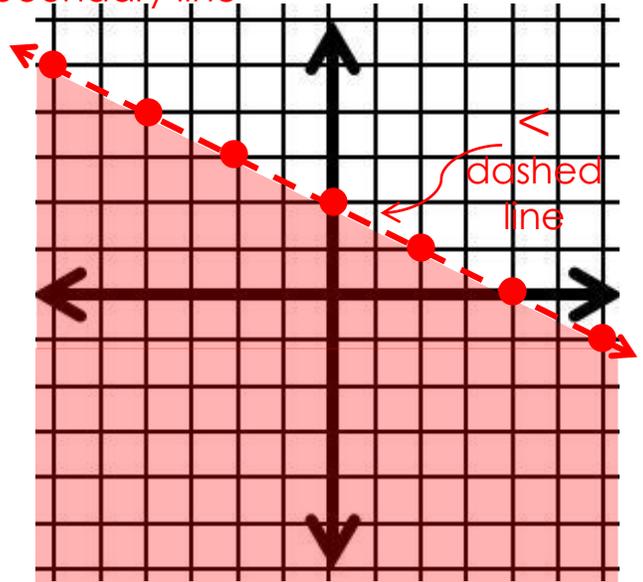


Example 2:

Graph $x + 2y < 4$

$$\frac{\begin{matrix} -x & & -x \\ \hline 2y < -x + 4 \\ \hline 2 & 2 & 2 \\ \hline y < -\frac{1}{2}x + 2 \end{matrix}}$$

< Shade BELOW the boundary line

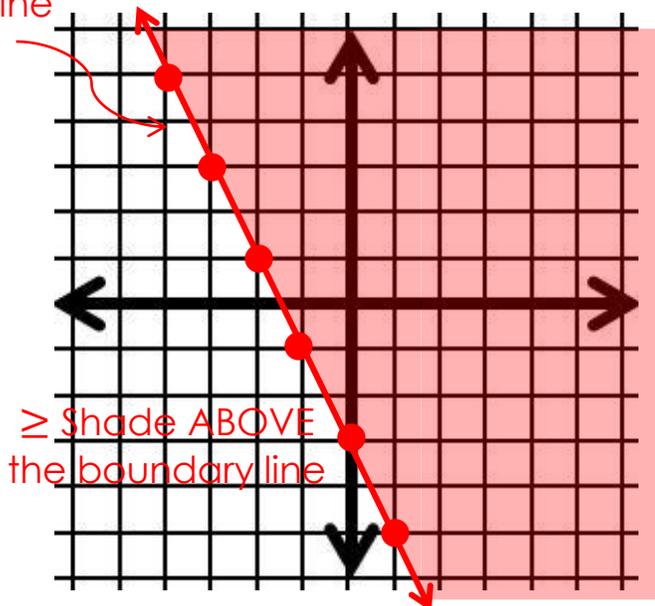


Example 3:

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

$$\frac{\begin{matrix} -6x & & -6x \\ \hline 3y \geq -6x - 9 \\ \hline 3 & 3 & 3 \\ \hline y \geq -2x - 3 \end{matrix}}$$

\geq
solid line

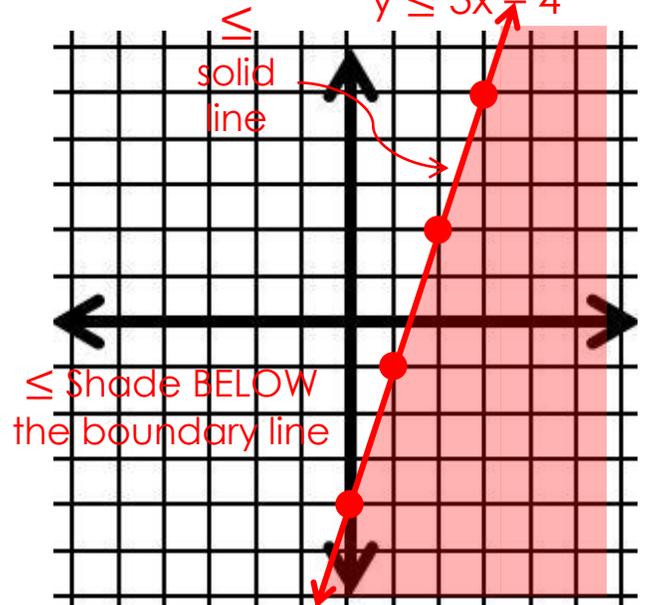


Example 4:

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

$$\frac{\begin{matrix} -6x + 2y \leq -8 \\ \hline +6x & & +6x \\ \hline 2y \leq 6x - 8 \\ \hline y \leq 3x - 4 \end{matrix}}$$

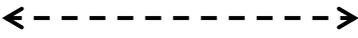
\leq
solid line

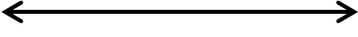


Step 1: Write the inequality in slope-intercept form.

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:

