Graphing Systems of Linear Inequalities

In a system of linear inequalities, inequalities are also called "***constraints***" because the solutions are constrained to the shaded region of the graph.

Write the inequality in slope-intercept form, $y = mx + b$.

Plot the y-intercept on the y-axis.

Use the slope or $\frac{rise}{run}$ to plot a second point.

Use a ruler to…

Draw a dashed/dotted line if < or >.

Draw a solid line if ≤ or ≥.

Remember, a line under < or > means draw a solid line.

Shade above the line if > or ≥.

Shade below the line if < or ≤.

For example, $y > 2x - 3$

Where on the *y*-axis are the #s greater than -3? Shade that side of the boundary line.