

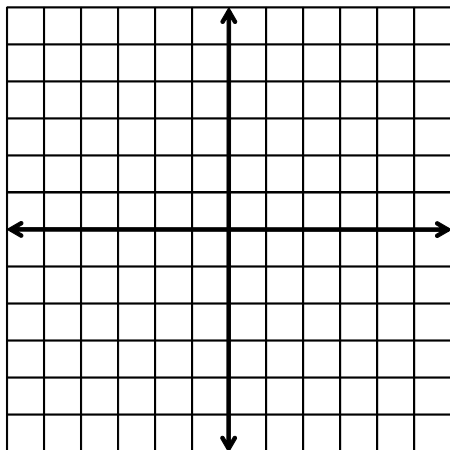
Algebra 2

2-03 Graph Quadratic Inequalities (3.6)

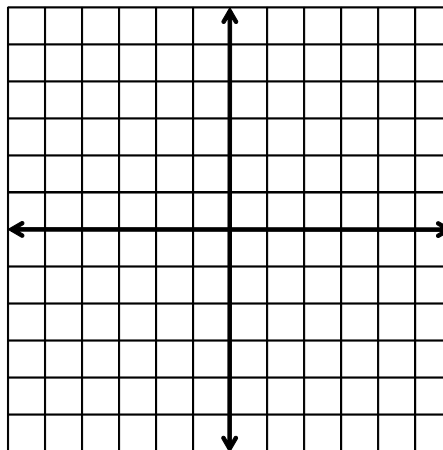
Graph a Quadratic Inequality in Two Dimensions

- Graph the inequality as if it was a _____.
- Decide whether the line is _____ or _____.
 - $\leq, =, \geq \rightarrow$ _____ line.
 - $<, > \rightarrow$ _____ line.
- Decide where to shade.
 - Method 1:
 - Pick a _____ point _____ on the line and _____ it into the original inequality.
 - If the point is a _____, shade _____ side of the parabola.
 - If it is NOT a solution, shade the _____ side.
 - Method 2:
 - Solve the inequality for _____.
 - If the inequality is $y >$, shade _____ the parabola.
 - If the inequality is $y <$, shade _____.

Graph $y \leq \frac{1}{2}(x + 2)(x - 4)$



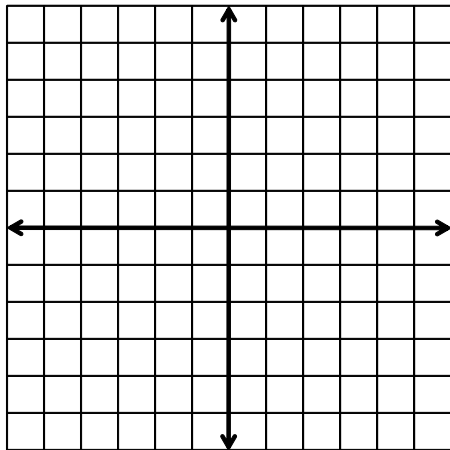
Graph $y > 2(x - 2)^2 - 5$



Graph a System of Quadratic Inequalities

1. Graph each inequality on the _____ coordinate plane.
2. The solution is all the points where all the shaded areas _____.
3. If there is no overlap of the shaded areas, then there is _____.

Solve $\begin{cases} y \geq x^2 - 4 \\ y \leq -x^2 + 2x + 3 \end{cases}$



140 #1, 5, 7, 11, 15, 17, 19, 21, 25, 50, Mixed Review = 15