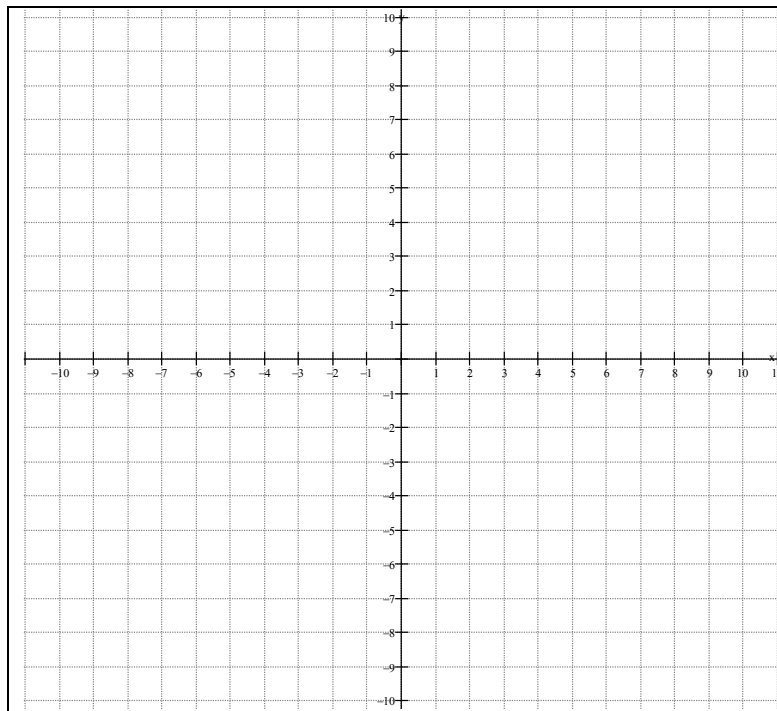
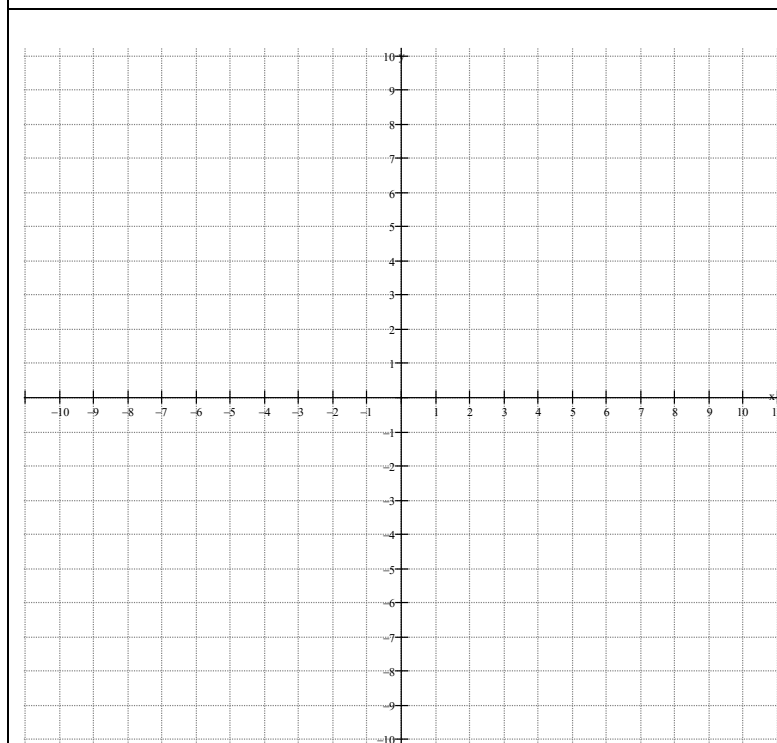


Worksheet #4 - Systems of Inequalities**SYSTEMS OF LINEAR-QUADRATIC INEQUALITIES**

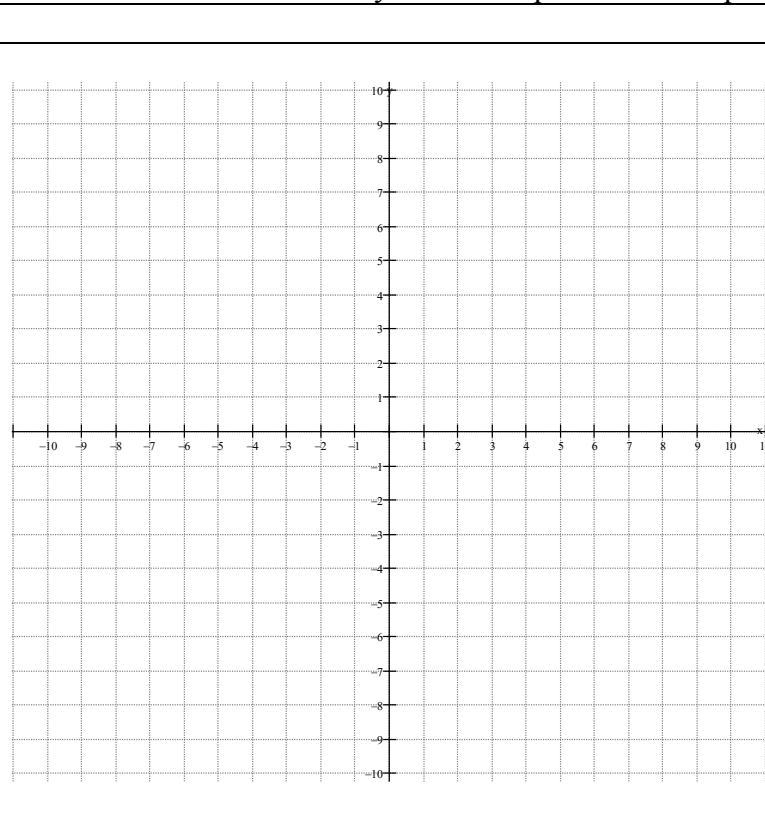
You solve these in exactly the same way that you solved linear inequalities. The only difference is that there will be one line and one parabola on your graphs!



$$(1) \begin{cases} 2x + y > 10 \\ y < 9 - x^2 \end{cases}$$



$$(2) \begin{cases} x + y \leq -6 \\ y < x^2 + 6x \end{cases}$$



(3)
$$\begin{cases} y \geq x + 3 \\ y > 4x - x^2 \end{cases}$$

4. The quadratic inequality is shown below. The x-intercepts of the graph are -1 and -7.
Write the inequality represented by the graph.

