



Today I will...	I'll know I've got it when...	Essential Question...

**Quadratic Inequalities:** The graph of an inequality is the collection of all solutions of the inequality.

**One Variable: Use a sign chart**

1. Find the roots by factoring or using the quadratic formula
2. Place the roots on a sign chart
3. Check values in each interval to determine whether the function is positive or negative

**Example 1:** Solve

A.  $x^2 - x - 12 \geq 0$

B.  $2x^2 - 7x \leq 4$

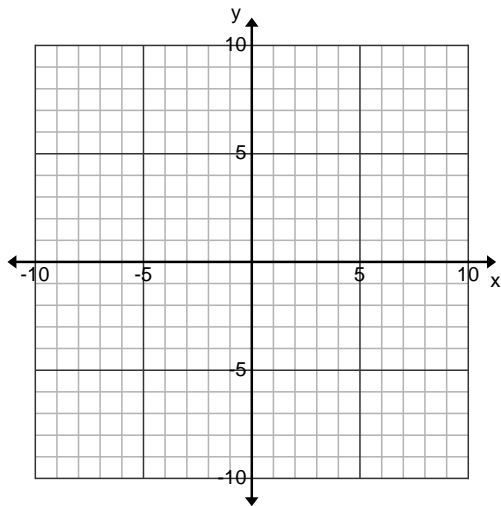
C.  $2x^2 + x - 4 > 0$

## Two Variables: Graph and Shade

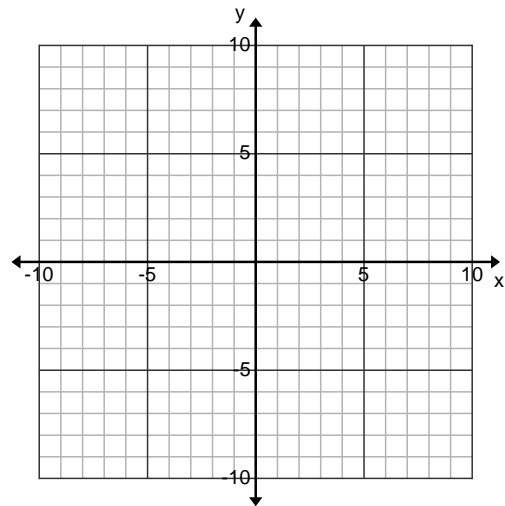
1. Graph the parabola
2. Decide if a dashed or solid line is appropriate
3. Pick a test point ((0,0) if possible) and shade the appropriate region

**Example 2:** Solve.

A.  $y > x^2 - 2$



B.  $y \leq x^2 + 3x - 4$



C.  $y < -x^2 - 4x$

