# Algebra 2

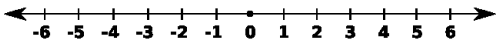
## 3-07 Solve Quadratic Inequalities (3.6)

**Solve inequalities in one variable.**

### Using a number line

1. Make _____
2. _____ or use the _____ to find the zeros
3. _____ the zeros on a _____ (notice it cuts the line into three parts)
4. Pick a _____ in each of the three parts as _____ points
5. Test the points in the _____ inequality to see true or false
6. Write inequalities for the regions that were _____

Solve $p^2 - 4p \leq 5$



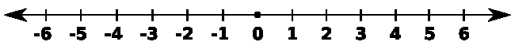

Solve $x^2 - 4x > 45$


### Using a graph

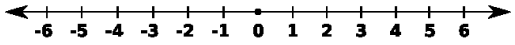
Or you could also solve the quadratic inequality in one variable by _____ the quadratic

1. Make the inequality _____
2. Plot points on _____
3. Quick _____
    a. When the graph is below the *x*-axis; _____ 0
    b. When the graph is above the *x*-axis; _____ 0

Solve using a graph. $x^2 + x - 20 > 0$



Solve using a graph. $-2x^2 - 9x - 4 \geq 0$

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