

Quadratic Inequalities:

How to solve a quadratic inequality on your graphing calculator:

1. Set the inequality equal to zero.
2. Find the zero(s) of the function.
3. Determine where the function is greater than zero (above the x-axis) or less than zero (below the x-axis).

Example 1: $x^2 - 7x + 10 > 0$

Example 2: $x^2 - 7x + 10 \leq 0$

Example 3: $3x^2 + 4x \geq 0$

Example 4: $3x^2 + 4x < 0$

Example 5: $x^2 + 2x > -1$

Example 6: $x^2 + 2x \leq -1$

Example 7: $-3x > 9 - 12x^2$

Example 8: $-x^2 - 2x < -8$

Example 9: $x^2 \geq -2$