Goals:

- I can solve inequalities containing radicals.

Name: _____

Algebra II
Solving Radical Equations and Inequalities

Solving Radical Inequalities

1. If the index of the root is even, identify the values of the variable for which the radicand is nonnegative.
2. Solve the inequality algebraically.
3. Test values to check your solution.

Example 1: **Solve a Radical Inequality**

$$3 + \sqrt{5x - 10} \leq 8$$

Step 1

Domain: {_____}

Step 2: Solve

$$3 + \sqrt{5x - 10} \leq 8$$

Step 3: Combine Step 1 and 2. Then TEST.

Example 2: **Solve each inequality.**

$$6 + \sqrt{3y + 4} < 6$$

Domain: _____

Solution: _____

Combining the two: _____

TEST the solution!