Warm Up:
Solve each inequality and graph your solution.

\[ 63 \geq 7q \]
\[ -\frac{3b}{2} < 6 \]

ACT Question:
What is the least common multiple of 12, 20, and 40?
A.) 60  B.) 120  C.) 480  D.) 800  E.) 9600

Solving a Multi-Step Inequality:

1.) Distributive Property
2.) Get variables on the left
3.) Add or Subtract
4.) Multiply or Divide

Examples 1 and 2:
Solve each inequality
Examples 3 and 4: (with your shoulder buddy)
Solve each inequality

4j + 11 ≤ -5
6 - 3p ≥ -9

Examples 5 and 6:
Solve each inequality

2(k + 4) - 3k ≤ 14
3x - 12 > 5x + 10

Examples 7 and 8: (with your shoulder buddy)
Solve each inequality

3(4c - 5) - 2c > 0
4t + 17 > 7 + 5t

Examples 9 and 10:
Solve each inequality, if possible. If the inequality has no solution, write no solution. If the solution are all real numbers, write all real numbers.

6w + 5 > 2(3w + 3)
-5r + 15 ≥ -5(r - 2)
Examples 11 and 12: (with your shoulder buddy)
Solve each inequality, if possible. If the inequality has no solution,
write no solution. If the solution are all real numbers, write all real
numbers.

-2(6 - x) < -16 + 2x

-5r + 10 ≤ -5(r + 2)

Example 13:
A grandmother says her grandson is two years older than her
granddaughter and that together they are at least 12 years old. How old are her grandson and granddaughter?

Example 14:
A family decides to rent a boat for the day while on vacation.
The boat’s rental rate is $500 for the first two hours and
$50 for each additional hour. Suppose the family can spend
for the boat. What inequality represents the number of
hours for which they can rent the boat?

Summary
What are the steps to solving a multi-step inequality?

What is the only thing that is different from solving equations to solving inequalities?