**2.1 A.REI.3 Inequality Notes**

When solving a linear inequality, follow the same steps as solving a linear   
equation. However, there is one very important exception…

**When you \_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_ an inequality by a   
  
\_\_\_\_\_\_\_\_\_\_\_\_ number, it \_\_\_\_\_\_\_\_ the inequality.**

What does each inequality symbol mean?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Symbol | Words | Arrow | Circle | Grouping Symbols (Interval Notation) |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

\*\*\* Positive and Negative \_\_\_\_\_\_\_\_\_\_\_ Have the grouping Symbols of \_\_\_\_\_\_ ALWAYS

**Set Notation** FOR ANY INEQUALITY:

**Solve and write the solution in interval notation, set notation and graph the solutions.**

http://www.mathsisfun.com/images/number-line.gif

1.

http://www.mathsisfun.com/images/number-line.gif

2.

http://www.mathsisfun.com/images/number-line.gif

3.

What does a No Solution graph look like?

What does an Infinite Solution graph look like?