**Section 1–5B: Solving Compound Inequalities**

You can join two inequalities with the word ***and*** or the word ***or*** to form a **compound inequality**. To solve a compound inequality containing ***and***, find all values of the variable that make both inequalities true.

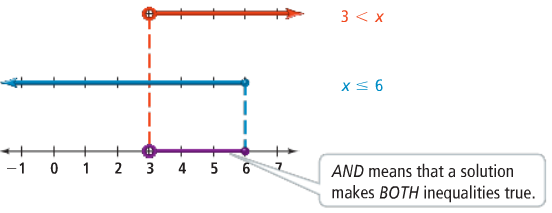
**Example 1: Solving an “AND” Inequality**

What is the solution of and ? Graph the solution.

You must solve each inequality separately:

**How do you graph a compound inequality with “and”?**

You must find the intersection of the solutions of the two inequalities.



You can collapse a compound ***and*** inequality, like and , into a simpler form, . You read as “ is greater than and less than .”

To solve a compound inequality containing ***or***, find all values of the variable that make at least one of the inequalities true.

**Example 2: Solving an “OR” Inequality**

What is the solution of or ? Graph the solution.

You must solve each inequality separately:

**How do you graph a compound inequality with “or”?**

You must graph all of the solutions of each inequality, not just the solutions of both inequalities.

