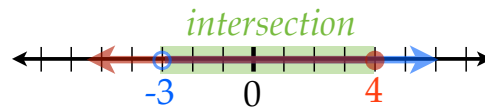


Compound Inequality

a pair of inequalities joined by an *and* or *or*.

$$x \leq 4 \text{ and } x > -3$$

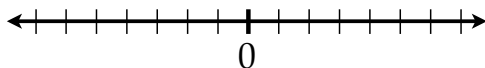


To solve an inequality with *and*, find the values that satisfy *both* inequalities

The *intersection* is the solution to a compound inequality with *and*.

Solve and graph the following **Compound Inequalities**.

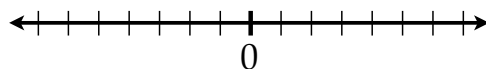
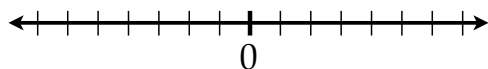
$$3x + 4 \geq -5 \quad \text{and} \quad 2x - 6 < 2$$



Solve and graph the following Compound Inequalities.

$$-7 \leq 3x + 2 \leq 11$$

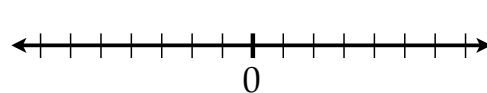
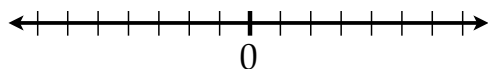
$$-28 < 4x - 8 < 16$$



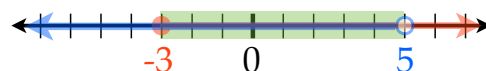
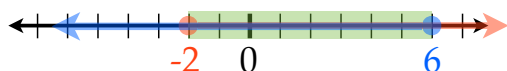
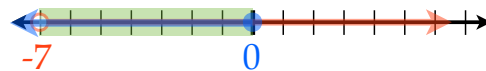
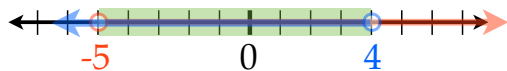
Solve and graph the following Compound Inequalities.

$$-10 < -2x - 4 < 8$$

$$-\frac{1}{2} \leq \frac{-3x + 6}{6} < 2$$



Determine the **Compound Inequality** for each graph.

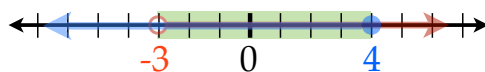


Compound Inequality

a pair of inequalities joined by an *and* or *or*.

$$x > -3 \text{ and } x \leq 4$$

intersection



$$-3 < x \leq 4$$

To solve an inequality with *and*, find the values that satisfy *both* inequalities

The *intersection* is the solution to a compound inequality with *and*.