Compound Inequality

a pair of inequalities joined by an and or or.

$$x \ge 4 \qquad x < -3$$

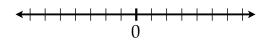
$$x < -3 \qquad 0 \qquad 4$$

$$x < -3 \quad or \quad x \ge 4$$

To solve an inequality with *or*, find the values that satisfies *at least one* inequality. The *union* is the solution to a compound inequality with *or*.

Solve and graph the following Compound Inequalities.

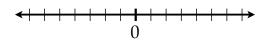
$$x + 12 \le 2x + 8 \qquad or \qquad 8 + 2x \le -4$$



Solve and graph the following Compound Inequalities.

$$2x + 8 < 6x - 8$$
 or $5 + 3x < 2$

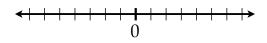
$$5 + 3x < 2$$



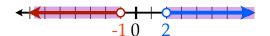
Solve and graph the following Compound Inequalities.

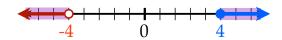
$$3x - 5 \le 5x - 15$$
 or $7 - 4x > 15$

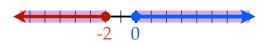
$$7 - 4x > 15$$

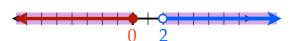


Determine the Compound Inequality for each graph.





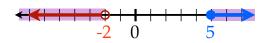




Compound Inequality

a pair of inequalities joined by an and or or.

$$x < -2$$
 or $x \ge 5$



To solve an inequality with *or*, find the values that satisfies *at least one* inequality. The *union* is the solution to a compound inequality with *or*.