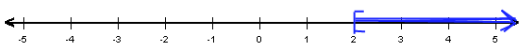
Solving Linear Inequalities in One Variable

1. Graph each inequality on a number line, and write each inequality in interval notation.

$$x \leq -8$$

2. Use interval notation to express the inequality shown in each graph.



3. Solve the inequality and express the solution set in set builder notation and interval notation. Graph the solution set on a real number line.

$$x + 7 \leq 2$$

4. Solve the inequality and express the solution set in set builder notation and interval notation. Graph the solution set on a real number line.

$$-8x \geq -24$$

5. Solve the inequality and express the solution set in set builder notation and interval notation. Graph the solution set on a real number line.

$$3x - 5 > 7$$

6. Solve the inequality and express the solution set in set builder notation and interval notation. Graph the solution set on a real number line.

$$-5(2-3x) > x+4$$

7. Solve the inequality and express the solution set in set builder notation and interval notation. Graph the solution set on a real number line.

$$7x-2 > \frac{1}{4}(x-3)$$

8. Solve the inequality and express the solution set in set builder notation and interval notation. Graph the solution set on a real number line.

$$7x-3(x-2) \le x+4$$