9.1   A Review of Solving Linear Inequalities

Solving a Linear Inequality

1. Simplify both sides of the inequality

2. Collect all variable terms on one side and all constant terms on the other

3. Isolate the variable and solve; be sure to change the direction of the inequality if you multiply or divide by a negative number

4. State the solution in interval notation and graph on a number line

Example 9.1.1. Solve the following:

$$3x + 1 > 7x - 15$$

Example 9.1.2. Solve the following:

$$\frac{x - 4}{2} \geqslant \frac{x - 2}{3} + \frac{5}{6}$$