

Algebra Review

Solve Equations with Variables and Constants on Both Side

Overview

- General Procedure
- Examples

General Procedure

How To – General Strategy

1. Choose which side will be the “variable” side—the other side will be the “constant” side.
2. Collect the variable terms to the “variable” side of the equation, using the Addition or Subtraction Property of Equality.
3. Collect all the constants to the other side of the equation.
4. Make the coefficient of the variable equal 1, using the Multiplication or Division Property of Equality.
5. Check the solution by substituting it into the original equation.

Examples

Example 1

Solve the equation.

$$12q - 5 = 9q - 20$$

Example 2

Solve the equation.

$$8c + 7 = -3c - 37$$