

# Variables on Both Sides

## Math 7+

### Steps To Solving Equations with Variables on Both Sides

$$2x - 3 = 3(x + 7) - 4$$

- 1) Distribute
- 2) Combine \_\_\_\_\_
- 3) Eliminate the Variable on One Side
- 4) Add or \_\_\_\_\_
- 5) \_\_\_\_\_ or Divide

To Complete Step #3:

- Identify the term with a variable that has the smallest coefficient.

- Then add or subtract (on both sides) to eliminate that whole term from the equation.

$$3x + 7 = -19 + 2x$$

$$2x - 3 = 3(x + 7) - 4$$

$$3(x - 5) = 7x + 20$$

$$-3 - 17x = 52 - 6x$$

$$5x = 3x - 6$$

$$3x - 8 = 13 - 4x$$

$$-4(x - 7) = 12 - 6x$$

$$3x - (-5) = -2 + 7x + 7$$

## Notes - Multi-Step Equations (Variables on Both Sides).notebook

$$3y + 10.5 = 6.5 + 2.5y + 3.1$$