

# Solving Multi-Step Equations (Variable on One Side)

(Math 7)

## The Steps

- 1) Distribute anything that can be distributed.
- 2) Combin**ALL** like terms. Do not combine like terms on different sides of the equal sign!
- 3) "Eliminate" the Constant (the number alone) by Addition or Subtraction
- 4) "Eliminate" the Coefficient (number with the variable) by Multiplication or Division

## Combining Like Terms

Example 1:  $8d - 3 - 5d = 9$

## Combining Like Terms

$11x + 4 - 6x = 9$        $-15r + 2 + 4r - 8 = 16$

## You Try!!!

$9c + (-2) - 6c = 4$

$4b - 16 + 3b = 47$

## You Try!!!

$2s + \frac{3}{5} + \frac{1}{5} = 1\frac{2}{5}$

$\frac{1}{2}d - \frac{3}{4}d + 2 = 6$

**Distribute and Solve**

Example 1:  $5(x - 7) = 90$

**Distribute and Solve**

Example 2:  $8e + 3(5 - e) = 10$

**You Try!!!**

$6 - 2(x + 5) = 8$

$-(k + 9) = 0$

**Challenge!!!**

$0.2(3 + p) = -5.6$

$\frac{1}{2}d - \frac{3}{4}d + 2 = 6$