

Solving Multi-step Equations

Understanding “Like Terms”

- A term is

Type of Term	Example	Other like terms	NOT like terms
constant			
coefficient x variable			
coefficient x variable raised to power			
coefficient x variable x variable			
coefficient x variable x variable (with exponents)			

Solving equations with more than one variable term:

$$2x + 4x - 9 = 15$$

$$\frac{3}{4}y - \frac{1}{2}y - 5 = 7$$

$$3z = 12 - z$$

$$5x - 4 = 3x + 12$$

Solving equations with parentheses:

$$2(x + 4) = 20$$

$$-2(x - 4) = -12$$

$$4(y - 3) = 3(y + 6)$$

$$-(x + 3) - 5 = 24$$

$$\frac{(x-2)}{3} = 13$$

A trick for solving equations with fractions:

$$\frac{1}{2}x - \frac{1}{3} = \frac{3}{4}$$

$$\frac{4}{5}y = \frac{1}{2}y + \frac{3}{10}$$

$$\frac{2}{3}m - 4 = \frac{1}{2}$$