

Solving Multi-Step Equations



Overview of problems



Example Set: A

Solve the equations-show all work

$$8(y - 4) = 10$$

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

$$-6x + 8 = 4x - 12$$

$$2(x + 6) = 9(x - 1)$$

$$15x + 21 - x = 10x - 9$$



Example Set: B

Solve the equations-show all work

$$-4(3 - x) = 11(4x - 3)$$

$$\frac{1}{2}(8n - 2) = 16 - 30n$$

$$6\left(\frac{3}{2}x + 1\right) = -9\left(\frac{1}{3}x - 2\right)$$



Example Set: C

Solve the equations-show all work

$$2(y-4) + 3(y-10) = 10y + 16$$

$$\frac{4}{9}x = 6(x+6) + x$$

$$70 = \frac{2}{3}m + \frac{1}{9}$$



Example Set: D

Solve the equations-show all work

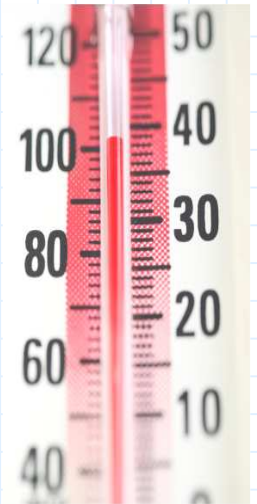
$$7(9.63x - .32) - 5.12 = -2(67.28x + 3.01)$$



Example Set: E

On a vacation you are told the outside temperature is 75 degrees Fahrenheit. Given the conversion formula below determine how warm it is outside in Celsius.

$$F = \frac{9}{5}C + 32$$



Solving Multi-Step Equations



Overview of problems- KEY



Example Set: A

Solve the equations-show all work

$$8(y - 4) = 10 \quad y = 5.25$$

$$5(x + 6) = 2x \quad x = -10$$

$$-6x + 8 = 4x - 12 \quad x = 2$$

$$2(x + 6) = 9(x - 1) \quad x = 3$$

$$15x + 21 - x = 10x - 9 \quad x = -7.5$$



Example Set: B

Solve the equations-show all work

$$-4(3-x) = 11(4x-3) \quad x = \frac{21}{40}$$

$$\frac{1}{2}(8n-2) = 16-30n \quad n = \frac{1}{2}$$

$$6\left(\frac{3}{2}x+1\right) = -9\left(\frac{1}{3}x-2\right) \quad x = 1$$



Example Set: C

Solve the equations-show all work

$$2(y-4) + 3(y-10) = 10y + 16 \quad y = -10.8$$

$$\frac{4}{9}x = 6(x+6) + x \quad x = -5.49$$

$$70 = \frac{2}{3}m + \frac{1}{9} \quad m = 104.83$$



Example Set: D

Solve the equations-show all work

$$7(9.63x - .32) - 5.12 = -2(67.28x + 3.01)$$
$$x = .00663$$



Example Set: E

On a vacation you are told the outside temperature is 75 degrees Fahrenheit. Given the conversion formula below determine how warm it is outside in Celsius.

23.8°C

$$F = \frac{9}{5}C + 32$$

