

OCTOBER 2015

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
11	12	13	14	15	16	17
	Two-step Equations WS	Two-Step Words	Pythagorean Theorem WS	Multi-Step Equations WS	Quiz! Variables on Both Sides Halloween Dance	

Two-Step Equations

To solve equations with two or more steps, we use the inverse Order of operations

[Work farthest from the variable and get closer and closer to it)

PEMDAS
 ↪ SADMEP

★ If an equation contains fractions, we can clear all fractions by multiplying every term by the common denominator. ★

a.) $2x + 5 = 25$ given

$$\begin{array}{r} 2x + 5 = 25 \\ -5 \quad -5 \\ \hline 2x = 20 \\ \hline x = 10 \end{array}$$

Subtraction property of equality

$$x = 10$$

division property of equality

b.) $\left(\frac{1}{3}x + \frac{3}{4} = \frac{5}{12} \right)$

$$4x + 9 = 5$$

$$\frac{1}{3} \cdot \frac{12}{1} = 4$$

$$\frac{3}{4} \cdot \frac{12}{1} = 9$$

$$\frac{5}{12} \cdot \frac{12}{1} = 5$$

c.) $\frac{8 \cdot 5}{8} - \frac{8 \cdot 1}{2} y = 10 \cdot 8$

$$5 - 4y = 80$$

$$6 \cdot \frac{2}{3}x + 6 \cdot 4 = \frac{1 \cdot 6}{6}$$

$$\rightarrow 4x + 24 = 1 \leftarrow$$

$$\cancel{4} 8x + 48 = 2 \cancel{4}$$

$$12x + 72 = 3$$

$$\frac{\textcircled{x}}{4} - 8 = 2 \quad \text{given}$$

$$+ 8 \quad + 8$$

$$4 \cdot \frac{\textcircled{x}}{4} = 10 \cdot 4 \quad \text{Add. prop. of eq.}$$

$$x = 40 \quad \text{mult. prop. of eq.}$$

$$\begin{array}{r} \cancel{5} - 2y = 10 \\ \cancel{-5} \end{array}$$

given

$$\begin{array}{r} \cancel{-2y} = 5 \\ \cancel{-2} \end{array}$$

subt.
prop. of
eq.

$$y = -2.5$$

div.
prop. of
eq.

$$\cancel{-10} - 3(x) = -28 \quad \text{given}$$
$$\underline{-10}$$

$$\frac{-3x}{-3} = \frac{-38}{-3} \quad \text{Subt.}$$

prop. of eq.

$$x = 12.\bar{6} \quad \text{div.}$$

prop. of eq.

