

objective: To solve 2-step equations with fractions and decimals

2/25/19

examples:

$$1.) \quad \frac{2}{5}x + 8 = 2$$

$$\begin{array}{r|l} +8 & +8 \\ \hline \frac{2}{5}x & = \frac{10}{1} \cdot \frac{5}{2} \end{array}$$

$$x = \frac{50}{2}$$

$$\boxed{x = 25}$$

$$2.) \quad 8 \left(\frac{3}{4}x + \frac{1}{2} = \frac{3}{8} \right)$$

* Multiply everything in equation by LCD.

LCD: 8

$$\frac{2}{8} \cdot \frac{3}{4}x + \frac{4}{8} \cdot \frac{1}{2} = \frac{1}{8} \cdot \frac{3}{8}$$

$$\begin{array}{r|l} 6x + 4 & = 3 \\ -4 & -4 \\ \hline 6x & = -1 \\ \frac{6}{6} & \frac{6}{6} \end{array}$$

$$\boxed{x = -1/6}$$

$$3.) \quad 1.2x + 3.4 = 5.4$$

$$\begin{array}{r|l} -3.4 & -3.4 \\ \hline 1.2x & = 2.0 \\ \frac{1.2}{1.2} & \frac{1.2}{1.2} \end{array}$$

$$1.2 \overline{) 2.0}$$

$$\begin{array}{r} 1.6 \\ \underline{12} \\ 80 \\ \underline{72} \\ 80 \\ \underline{80} \\ 0 \end{array}$$

$$x = 1.\overline{6}$$

$$4.) \quad -5.5 = \frac{x}{3.4} + 3$$

$$\begin{array}{r|l} +3.0 & 3.4 \\ \hline 3.4(-2.5) & = \frac{x}{3.4} \times 3.4 \\ \frac{1}{2} & \\ -2.5 & \\ \times 3.4 & \\ \hline 100 & \\ 750 & \\ \hline 850 & \end{array}$$

$$\boxed{x = 8.5}$$