

# Solving Equations (with Fractions)

9/12

## Steps

- Simplify
- ① Distribute
  - ② Combine like terms  
(on the same side)
  - ③ Add/Subtract Constants
  - ④ Divide by Coefficient
- 2a) Move Variables to 1 side

Sep 12-8:05 AM

$$6 \cdot \frac{2}{3}s - \cancel{6} \cdot \frac{5}{6}s + \frac{6 \cdot 1}{2} = \frac{6 \cdot 3}{2}$$

LCD: 6

$$4s - 5s + 3 = -9$$

$$-1s + 3 = -9$$

$$\frac{-3 - 3}{-3 - 3}$$

$$\frac{-1s = -12}{-1 \quad -1}$$

$$s = 12$$

$$\frac{2}{3}s - \frac{5}{6}s + \frac{1}{2} = -\frac{3}{2}$$

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

$$-\frac{1}{2} - \frac{1}{2}$$

$$\frac{-\frac{1}{6}s = -2}{-\frac{1}{6} \quad -\frac{1}{6}}$$

$$s = 12$$

Sep 11-8:18 AM

$$\textcircled{K} \quad \frac{1}{2}k = \frac{3}{4}k - \frac{1}{2}$$

$$\begin{array}{r} -\frac{3}{4}k \quad -\frac{3}{4}k \\ \hline \end{array}$$

$$\frac{-\frac{1}{4}k}{-\frac{1}{4}} = \frac{-\frac{1}{2}}{-\frac{1}{4}} \quad \text{or } -0.25k = -0.5$$

$$\boxed{k=2}$$

$$\textcircled{Y} \quad \frac{4-y}{5} = \frac{2-2y}{8}$$

$$5(2-2y) = 8(4-y)$$

$$\begin{array}{r} 10 - 10y = 32 - 8y \\ +10y \quad \quad +10y \\ \hline \end{array}$$

$$10 = 32 + 2y$$

$$\begin{array}{r} -32 \quad -32 \\ \hline \end{array}$$

$$\frac{-22 = 2y}{2 \quad 2}$$

$$\boxed{y=-11} \text{BN}$$

Sep 11-8:12 AM