

HW Fractional Equations

10/25

$$1.) \overset{\text{LCD}}{6} \left[\frac{1}{x} - \frac{2y}{8} - \frac{1}{2} \right]$$

$$1 = 4y - 3$$

$$\begin{array}{r} +3 \\ \hline 4 = 4y \end{array}$$

$$\frac{4}{4} = \frac{4y}{4}$$

$$y = 1$$

$$2.) \overset{\text{LCD}}{6} \left[\frac{1}{x} a - \frac{1}{3} a = -\frac{2}{1} \right]$$

$$3a - 2a = -12$$

$$a = -12$$

$$3.) \overset{\text{LCD}}{8} \left[\frac{3}{x} b - \frac{1}{4} b = \frac{3}{1} \right]$$

$$3b - 2b = 24$$

$$b = 24$$

$$4.) \overset{\text{LCD}}{6} \left[\frac{1}{x} h - \frac{1}{2} = \frac{1}{6} \right]$$

$$2h - 3 = 1$$

$$\begin{array}{r} +3 \\ \hline 2h = 4 \end{array}$$

$$\frac{2h}{2} = \frac{4}{2}$$

$$h = 2$$

$$5) \quad \begin{array}{r} \text{LCD} \\ 20 \end{array} \quad \begin{array}{r} 4 \\ 20 \end{array} \quad \begin{array}{r} 2 \\ 20 \end{array} \quad \begin{array}{r} 1 \\ 20 \end{array} \quad \left[\frac{1}{5}x - \frac{3}{10} - \frac{1}{20}x \right]$$

$$\begin{array}{r} 4x - 6 = 1x \\ -4x \quad \quad -4x \\ \hline \end{array}$$

$$\begin{array}{r} -6 = -3x \\ -3 \quad -3 \\ \hline \end{array}$$

$$x = 2$$

$$6) \quad \begin{array}{r} 3 \\ 3 \end{array} (2x + 6) = 9(3)$$

$$\begin{array}{r} 2x + 6 = 27 \\ -6 \quad -6 \\ \hline \end{array}$$

$$\begin{array}{r} 2x = 21 \\ 2 \quad 2 \\ \hline \end{array}$$

$$x = 10 \frac{1}{2}$$

$$7) \quad 6(2x - 5) + 4x = 11x - 22$$

$$12x - 30 + 4x = 11x - 22$$

$$16x - 30 = 11x - 22$$

$$\begin{array}{r} -11x \quad -11x \\ \hline \end{array}$$

$$5x - 30 = -22$$

$$\begin{array}{r} +30 \quad +30 \\ \hline \end{array}$$

$$\begin{array}{r} 5x = +8 \\ 5 \quad 5 \\ \hline \end{array}$$

$$x = 1 \frac{3}{5}$$