

10.19.15

We need some fraction practice. Please solve the following equations for x. (no decimals)

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

$$\frac{6x}{2} + \frac{6}{3} = \frac{6x}{3} + \frac{6}{2}$$

$$3x + 2 = \cancel{2x} + 3$$

$$\begin{array}{r} 3x + 2 = 3 \\ -2x \quad -2 \\ \hline x + \cancel{2} = \cancel{3} \end{array}$$

$$\boxed{x=1}$$

$$\frac{\frac{2}{3}(x+5)}{\frac{2}{3}} = \frac{\frac{4}{9}}{\frac{2}{3}}$$

$$\cancel{\frac{3}{2}} \cdot \frac{2}{3} (x+5) = \frac{4}{9} \cdot \frac{3}{2}$$

$$x+5 = \frac{12}{18}$$

$$\begin{array}{r} \cancel{x+5} = \frac{\cancel{2}}{\cancel{3}} \\ \hline 1 = 3(x+5) \end{array}$$

$$2 = 3x + 15$$

$$\begin{array}{r} -15 \\ 2 = 3x + 15 \\ \hline -13 = 3x \end{array} \quad \begin{array}{r} -13 \\ 3 \\ \hline -\frac{13}{3} = x \end{array}$$