

* Solve $\frac{4}{5} - \frac{x}{3} = \frac{x}{9}$ *

① What is the LCM of 5, 3, and 9?
 (3²)

$$\text{LCM} = 3^2 \cdot 5 = 45$$

② Clear out the denominators by multiplying by the LCM

$$\left(\frac{45}{1}\right)\left(\frac{4}{5} - \frac{x}{3}\right) = \left(\frac{x}{9}\right)\left(\frac{45}{1}\right)$$

$$\frac{9 \cdot 45}{1} \cdot \frac{4}{5} - \frac{15 \cdot 45}{1} \cdot \frac{x}{3}$$

$$36 - 15x = 5x$$

$$\begin{array}{r} 36 - 15x \\ + 15x \\ \hline \end{array} = \begin{array}{r} 5x \\ + 15x \\ \hline \end{array}$$

$$\begin{array}{r} 36 \\ \hline 20 \\ \hline 5 \end{array} = \begin{array}{r} 20x \\ \hline 20 \end{array}$$

$$\boxed{\frac{9}{5} = x}$$