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$$\textcircled{3} \frac{3}{4}t = \frac{2}{3}$$

$$\frac{3}{4} \cdot \square = \frac{2}{3}$$

→ If you don't remember what to do, make up an easier problem with numbers in the same place, variables in the same place, etc.

$$\begin{array}{ccccccc} \frac{3}{4} & \cdot & t & = & \frac{2}{3} & & \\ \downarrow & & \downarrow & & \downarrow & & \\ 9 & \cdot & \square & = & 45 & & \end{array}$$

$$45 \div 9 = 5$$

↑
↑
 Last # ÷ First #

8th grade
Tues., 2-9-10

So, we divide the "last #" by the "first #."

$$\frac{2}{3} \div \frac{3}{4} =$$

$$\frac{2}{3} \cdot \frac{4}{3} = \frac{8}{9}$$

$$t = \frac{8}{9}$$

check: $\frac{3}{4}t = \frac{2}{3}$

$$\frac{3}{4} \cdot \frac{8}{9} = \frac{\cancel{3}^1}{4} \cdot \frac{\cancel{8}^2}{\cancel{9}_3} = \frac{2}{3} \quad \text{☺}$$

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 ⑤ $2x + \frac{1}{3} = \frac{3}{4}$ → Least Common Multiple (LCM) or
 Least Common Denominator (LCD)
 of 3 and 4 is 12:

$$\frac{1}{3} = \frac{4}{12} \rightarrow \frac{1}{3} \times \frac{4}{4} = \frac{4}{12}$$

$$\frac{3}{4} = \frac{9}{12} \rightarrow \frac{3}{4} \times \frac{3}{3} = \frac{9}{12}$$

$$\begin{array}{r}
 2x + \frac{4}{12} = \frac{9}{12} \\
 - \frac{4}{12} \quad - \frac{4}{12} \\
 \hline
 2x = \frac{5}{12}
 \end{array}$$

subtract $\frac{4}{12}$ from both sides of the equation

$$2 \cdot \square = \frac{5}{12}$$

Since 2 times something equals $\frac{5}{12}$, we divide to find what "something" is

$$\frac{5}{12} \div 2 = \square$$

$$\frac{5}{12} \div \frac{2}{1} = \frac{5}{12} \times \frac{1}{2} = \frac{5}{24}$$

$$x = \frac{5}{24}$$

check:

$$2x + \frac{4}{12} = \frac{9}{12}$$

$$\left(2 \cdot \frac{5}{24}\right) + \frac{4}{12} = \frac{9}{12}$$

$$\left(\frac{2}{1} \cdot \frac{5}{24}\right) + \frac{4}{12} = \frac{9}{12}$$

$$\frac{5}{12} + \frac{4}{12} = \frac{9}{12} \quad \text{☺}$$

pg. 223 (h)

$$\frac{1}{2} + 3c = \frac{3}{4}$$

LCD of 2 and 4 is 4

$$\frac{1}{2} = \frac{2}{4} \rightarrow \frac{1}{2} \cdot \frac{2}{2} = \frac{2}{4}$$

$$\begin{array}{r} \frac{2}{4} + 3c = \frac{3}{4} \\ -\frac{2}{4} \qquad \qquad -\frac{2}{4} \\ \hline \end{array}$$

$$3c = \frac{1}{4}$$

$$\frac{1}{4} \div 3 = \text{Since 3 times something equals } \frac{1}{4}, \text{ we divide to find what "something" is}$$

$$\frac{1}{4} \times \frac{1}{3} = \frac{1}{12} \quad \boxed{c = \frac{1}{12}}$$

check: $\frac{2}{4} + 3c = \frac{3}{4}$

$$\frac{2}{4} + (3 \cdot \frac{1}{12}) = \frac{3}{4}$$

$$\frac{2}{4} + (\cancel{3} \cdot \frac{1}{\cancel{12}}) = \frac{3}{4}$$

$$\frac{2}{4} + \frac{1}{4} = \frac{3}{4} \quad \text{!}$$