

Method 1 — Fraction Tiles: $\frac{1}{4} + \frac{1}{3}$

We are going use our fraction tiles.

Find your $\frac{1}{4}$

You try: $-\ + \ -$

$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$
$\frac{1}{4}$		

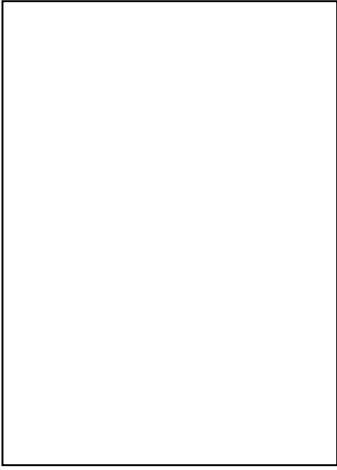
$$\begin{aligned} & \frac{3}{8} + \frac{1}{4} \\ &= \frac{3}{8} + \frac{2}{8} \\ &= \frac{3+2}{8} \\ &= \frac{5}{8} \\ \therefore \frac{3}{8} + \frac{1}{4} &= \frac{5}{8} \end{aligned}$$

Method 2: Common Denominators

Let's do it another way. We will use the first problem: $x = \frac{1}{4} + \frac{1}{3}$.

We can find a **common denominator**.

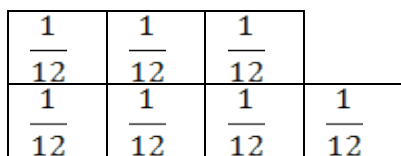
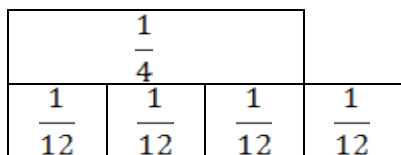
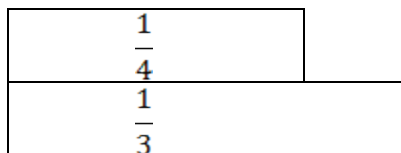
What is the LCM of 4 and 3? [12]



Side-by-side Class Chart of Example & You Try:

Example: $x = \frac{1}{4} + \frac{1}{3}$

Fraction Tiles:



$$\therefore \frac{1}{4} + \frac{1}{3} = \frac{7}{12}$$

Common Denominators:

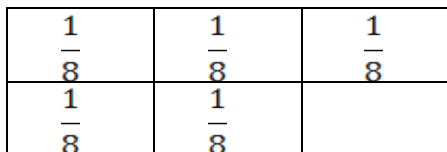
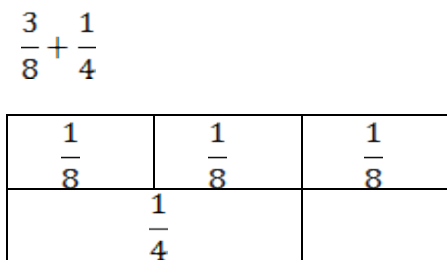
$$\begin{aligned}
 x &= \frac{1}{4} + \frac{1}{3} \\
 x &= \frac{1}{4} \cdot \frac{3}{3} + \frac{1}{3} \cdot \frac{4}{4} \\
 x &= \frac{3}{12} + \frac{4}{12} \\
 x &= \frac{3+4}{12} \\
 x &= \frac{7}{12}
 \end{aligned}$$

Clearing Denominators:

$$\begin{aligned}
 x &= \frac{1}{4} + \frac{1}{3} \\
 12(x) &= 12\left(\frac{1}{4}\right) + 12\left(\frac{1}{3}\right) \\
 \frac{12}{1}(x) &= \frac{12}{1}\left(\frac{1}{4}\right) + \frac{12}{1}\left(\frac{1}{3}\right) \\
 12x &= \frac{12 \cdot 1}{1 \cdot 4} + \frac{12 \cdot 1}{1 \cdot 3} \\
 12x &= \frac{12}{4} + \frac{12}{3} \\
 12x &= 3 + 4 \\
 12x &= 7 \\
 \frac{12x}{12} &= \frac{7}{12} \\
 x &= \frac{7}{12}
 \end{aligned}$$

You Try: $x = \frac{3}{8} + \frac{1}{4}$

Fraction Tiles:



$$\frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} = \frac{5}{8}$$

$$\therefore \frac{3}{8} + \frac{1}{4} = \frac{5}{8}$$

Common Denominators:

$$x = \frac{3}{8} + \frac{1}{4}$$

Clearing Denominators: