Add $\frac{1}{4}$ and $\frac{2}{6}$. Will the answer be greater than 1?

Method 1

Least common multiple = denominators of like fractions

4, 8, 12
6, 12

$\frac{1}{4} \xrightarrow[\times 3]{\times 3} \frac{3}{12}$

$\frac{2}{6} \xrightarrow[\times 2]{\times 3} \frac{4}{12}$

How?

Both fractions are less than $\frac{1}{2}$, so the answer will not be greater than 1.

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

Method 2

$\frac{1}{4} + \frac{2}{6} = \frac{6}{24} + \frac{8}{24}$

Multiply the denominators $4 \times 6 = 24$

$\frac{1}{4} \xrightarrow[\times 6]{\times 6} \frac{6}{24}$ $= \frac{14 \div 2}{24 \div 2}$

$\frac{2}{6} \xrightarrow[\times 4]{\times 4} \frac{8}{24}$ $= \frac{7}{12}$

How?

Write the fraction in the simplest form.

Add $\frac{7}{10}$ and $\frac{5}{6}$. Will the answer be greater than 1?

Method 2

$\frac{7}{10} + \frac{5}{6} = \frac{42}{60} + \frac{50}{60}$ $10 \times 6 = 60$

$\frac{7}{10} \xrightarrow[\times 6]{\times 6} \frac{42}{60}$

$\frac{5}{6} \xrightarrow[\times 10]{\times 10} \frac{50}{60}$

$= \frac{92 \div 2}{60 \div 2}$ Write the fraction in simplest form.

$=$

Then write answer as a mixed number

Subtract $\frac{1}{3}$ from $\frac{1}{2}$

$\frac{1}{2} - \frac{1}{3}$ 6 is Common multiple of 2 and 3.

$\frac{1}{2} \xrightarrow{\times 3} \frac{3}{6}$ $\frac{1}{3} \xrightarrow{\times 2} \frac{2}{6}$

$\frac{3}{6} - \frac{2}{6} = \frac{1}{6}$

Subtract $\frac{3}{8}$ from $\frac{2}{3}$

$\frac{2}{3} - \frac{3}{8} = \frac{16}{24} - \frac{6}{24}$

Common multiple of 3 and 8 is 3, 6, 9, 12, 15, 18, 24
8, 16, 24

$\frac{2}{3} \xrightarrow{\times 8} \frac{16}{24}$ $\frac{3}{8} \xrightarrow{\times 3} \frac{6}{24}$

$= \frac{10}{24}$

Write the fraction in simplest form

Find value $\left|\frac{7}{10} - \frac{5}{6}\right|$

$\left|\frac{7}{10} \xrightarrow{\times 3} \frac{21}{30}\right|$

$\frac{5}{6} \xrightarrow{\times 5} \frac{25}{30}$ $\left|\frac{7}{30} + \frac{25}{30}\right|$

Write the fractions as like fractions.

Common multiple of 6 and 10 is 6, 12, 18, 24, 30
10, 20, 30

$\frac{30}{30} + \frac{7}{30} + \frac{25}{30}$

Write mixed fractions as an improper fraction

Write answer in simplest form as a mixed number.