

Name: Class:



How to add 3 or more fractions with unlike denominators

Add the following fractions (simplify your answer).

a. $\frac{2}{3} + \frac{4}{6} + \frac{1}{4} + \frac{5}{6}$

c. $\frac{1}{2} + \frac{2}{6} + \frac{1}{4} + \frac{5}{8}$

b. $\frac{3}{5} + \frac{1}{3} + \frac{5}{6} + \frac{1}{2} + \frac{7}{15}$

d. $\frac{10}{14} + \frac{4}{7} + \frac{1}{28}$



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How to add 3 or more fractions with unlike denominators

Add the following fractions (simplify your answer).

a. $\frac{2}{3} + \frac{4}{6} + \frac{1}{4} + \frac{5}{6}$

Let's first of all find the LCM of the denominators, then evaluate.

$$\frac{2}{3} + \frac{4}{6} + \frac{1}{4} + \frac{5}{6}$$

$$\frac{8 + 8 + 3 + 10}{12} = \frac{29}{12}$$

now, let's simplify.

$$\frac{29}{12} = 12 \begin{array}{r} 2 \\ 29 \\ - 24 \\ \hline 5 \end{array} = 2\frac{5}{12}$$

$$\text{So, } \frac{2}{3} + \frac{4}{6} + \frac{1}{4} + \frac{5}{6} = 2\frac{5}{12}$$

c. $\frac{1}{2} + \frac{2}{6} + \frac{1}{4} + \frac{5}{8}$

Let's first of all find the LCM of the denominators, then evaluate.

$$\frac{1}{2} + \frac{2}{6} + \frac{1}{4} + \frac{5}{8}$$

$$\frac{12 + 8 + 6 + 15}{24} = \frac{41}{24}$$

now, let's simplify.

$$\frac{41}{24} = 24 \begin{array}{r} 1 \\ 41 \\ - 24 \\ \hline 17 \end{array} = 1\frac{17}{24}$$

$$\text{So, } \frac{1}{2} + \frac{2}{6} + \frac{1}{4} + \frac{5}{8} = 1\frac{17}{24}$$

b. $\frac{3}{5} + \frac{1}{3} + \frac{5}{6} + \frac{1}{2} + \frac{7}{15}$

Let's first of all find the LCM of the denominators, then evaluate.

$$\frac{3}{5} + \frac{1}{3} + \frac{5}{6} + \frac{1}{2} + \frac{7}{15}$$

$$\frac{18 + 10 + 25 + 15 + 14}{30} = \frac{82}{30} = 2\frac{11}{15}$$

$$\text{So, } \frac{3}{5} + \frac{1}{3} + \frac{5}{6} + \frac{1}{2} + \frac{7}{15} = 2\frac{11}{15}$$

d. $\frac{10}{14} + \frac{4}{7} + \frac{1}{28}$

Let's first of all find the LCM of the denominators, then evaluate.

$$\frac{10}{14} + \frac{4}{7} + \frac{1}{28}$$

$$\frac{20 + 16 + 1}{28} = \frac{37}{28} = 1\frac{9}{28}$$

$$\text{So, } \frac{10}{14} + \frac{4}{7} + \frac{1}{28} = 1\frac{9}{28}$$

