

Addition of fractions

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Addition of like fractions

Ques:-1  $\Rightarrow$  Add  $\frac{3}{7}$  and  $\frac{2}{7}$

Solve:  $\Rightarrow \frac{3}{7} + \frac{2}{7}$

To add like fractions, we simply add their numerators and write the common denominator.

$$\frac{3}{7} + \frac{2}{7} = \frac{3+2}{7} = \frac{5}{7} \text{ Ans}$$

Ques:-2  $\Rightarrow$  Add  $\frac{3}{8}$ ,  $\frac{2}{8}$ , and  $\frac{1}{8}$ .

Solve:  $\Rightarrow \frac{3}{8} + \frac{2}{8} + \frac{1}{8}$

$$\frac{3+2+1}{8} = \frac{6}{8}$$

But  $\frac{6}{8}$  is not in the lowest term.



So, we first find the H.C.F of 6 and 8.

H.C.F of 6 and 8 = 2

$$\frac{6}{8} = \frac{6 \div 2}{8 \div 2} = \frac{3}{4}$$

$$\begin{array}{r|l} 2 & 6 \\ \hline 3 & 3 \\ \hline & 1 \end{array} \quad \begin{array}{r|l} 2 & 8 \\ \hline 2 & 4 \\ \hline 2 & 2 \\ \hline & 1 \end{array}$$

$$6 = 2 \times 3$$

$$8 = 2 \times 2 \times 2$$

$$\text{H.C.F} = 2$$

Thus,  $\frac{3}{8} + \frac{2}{8} + \frac{1}{8} = \frac{3}{4}$  Ans

## Addition of Unlike fractions

Ques:  $\Rightarrow$  Add  $\frac{2}{3}$  and  $\frac{1}{5}$ .

Solve:  $\Rightarrow$   $\frac{2}{3}$  and  $\frac{1}{5}$  are unlike fractions.

We will first convert them into like fractions.

L.C.M of 3, and 5 = 15

$$\begin{array}{r|l} 3 & 3, 5 \\ \hline 5 & 1, 5 \\ \hline & 1, 1 \end{array}$$

$$5 \mid 1, 5$$

$$\mid 1, 1$$

$$\text{L.C.M} = 3 \times 5 = 15$$



$$\frac{2}{3} = \frac{2 \times 5}{3 \times 5} = \frac{10}{15}$$

$$\frac{1}{5} = \frac{1 \times 3}{5 \times 3} = \frac{3}{15}$$

NOW,  $\frac{2}{3} + \frac{1}{5} = \frac{10}{15} + \frac{3}{15}$

$$= \frac{10 + 3}{15}$$

$$= \frac{13}{15}$$

Thus-

$$\frac{2}{3} + \frac{1}{5} = \frac{13}{15} \text{ Ans}$$

H.W

Complete Exercise-6 - Question  
Number 2 and 3 (All).