



FRACTIONS

'Adding Two Fractions'

We have already learned how to add fractions with the same denominator.

We add the numerators while the denominator remains same.

$$\rightarrow \frac{3}{10} + \frac{5}{10} = \frac{3+5}{10} = \frac{8}{10}$$

We can also come across fraction where the denominator is not same. If one of them is a multiple of the other, we multiply the numerator and denominator of one fraction with some number so that we get the same denominators.

$$\rightarrow \frac{2}{5} + \frac{2}{10} = \underline{\hspace{2cm}}$$

$$\frac{2}{5} = \frac{2 \times 2}{5 \times 2} = \frac{4}{10} \text{ (equivalent fraction of } \frac{2}{5} \text{)}$$

Now we will add both the fractions since we have got same denominators.

$$\rightarrow \frac{4}{10} + \frac{2}{10} = \frac{4+2}{10} = \frac{6}{10}$$

We can also have two fractions where we have to multiply the numerator and denominator of both the fractions with some numbers in order to get same denominators. Look at the following example.

$$\rightarrow \frac{2}{3} + \frac{1}{4} = \underline{\hspace{2cm}}$$



Here multiply any one fraction by a number will not get us the same denominators. So we will find the equivalent fractions of both the fractions so that we have same denominators and then add them.

$$\frac{2}{3} = \frac{2 \times 4}{3 \times 4} = \frac{8}{12} \text{ (equivalent fraction of } \frac{2}{3} \text{)}$$

$$\frac{1}{4} = \frac{1 \times 3}{4 \times 3} = \frac{3}{12} \text{ (equivalent fraction of } \frac{1}{4} \text{)}$$

Now we'll carry out addition.

$$\rightarrow \frac{8}{12} + \frac{3}{12} = \frac{8+3}{12} = \frac{11}{12}$$

Note: *If we get an improper fraction at the end, we can also convert it into a mixed number if required.*