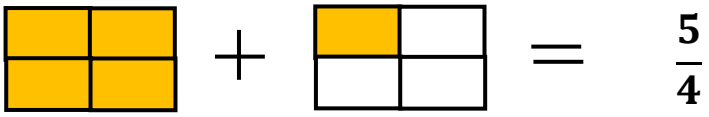
FRACTIONS

'Mixed Numbers and Improper Fractions'

We have already learned about improper fractions. An **Improper Fraction** is a fraction in which the numerator is greater than or equal to the denominator. For example, $\frac{12}{7}$, $\frac{7}{2}$ etc are all improper fractions.

Now we will learn about Mixed Numbers. A **Mixed number** consists of a *whole number* and a *fraction*. For example $2\frac{5}{7}$, $3\frac{2}{5}$ etc are mixed numbers.

Look at the following example to understand mixed numbers.



$$= \frac{5}{4}$$

We know that a whole $= \frac{4}{4} = 1$ and the other figure is 1 quarter which is $\frac{1}{4}$. So we can write the fraction as $1\frac{1}{4}$ which is a mixed number as it is a mixture of a whole number and a fraction.

A mixed number can be converted into an improper fraction.

$1\frac{1}{4}$ ⟹ First we will multiply the whole number by the denominator of the proper fraction and then add the numerator of the proper fraction with it.

⟹ $4 \times 1 = 4$

⟹ $4 + 1 = 5$

which will give us our improper fraction ⟹ $\frac{5}{4}$

Similarly an improper fraction can be converted into a mixed number by division.

$\frac{5}{4}$ ⟹ $4\overline{)5}$ 1 → Whole Number

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1 → Numerator

Denominator

⟹ $1\frac{1}{4}$