Converting Fractions to Decimal Fractions - Part 3

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In the previous segment, we learnt how to **convert fractions** with multiples of 10 as the denominator, into decimal fractions. In this segment, we will learn how to convert mixed fractions into decimals.

How to Convert a mixed fraction into its decimal form?

A mixed fraction consists of a whole part and a fractional part.

To convert a mixed fraction into a decimal fraction, convert the fractional part to its decimal form and add this to the whole part of the mixed fraction.

For example,

Q. Convert the fraction $11\frac{9}{40}$ to its decimal form.

Solution

$11\frac{9}{40} = 11 + \frac{9}{40}$

To convert the fractional part, that is $\frac{9}{40}$,

Divide the numerator by the denominator, that is 9 by 40.

$$
\begin{array}{r}
22 \\
4\overline{)\,900} \\
\underline{80} \\
10 \\
\underline{80} \\
20 \\
\underline{20} \\
0
\end{array}
$$

Now place the decimal point in the quotient.
As 3 zeros are added, the decimal point will be placed in quotient as 0.225.

The original fraction is $11\frac{9}{40}$, so add the decimal fraction to the whole part, that is, 11.
Thus, $11 + 0.225 = 11.225$.

Therefore, $11\frac{9}{40} = 11.225$.

Summary

Mixed fraction to Decimal fraction	Convert only the fractional part of the mixed fraction to decimal form and then add it to the whole part of the mixed fraction

What's next?

In the next segment of Class 10 Maths, we will learn if we can tell if a Rational Number is a **Terminating or a Non-Terminating Recurring Decimal.**