Conversion of **0.5 as a fraction** : Decimal to Fraction

Converting **0.5 as a fraction** is easy, if you are familiar with the mathematical concepts of decimal and fraction. Mathematical operations : Addition, Subtraction, Multiplication and Division are the base to solve any arithmetic equation. If you are good at Multiplication and Division, then you can understand equations related to decimal and fraction.

Concept of Half

0.5 as a fraction represents Half parts of a whole. When you divide an object in two equal parts, they become halves of each other. Both halves complete each other together.

For example, cut a biscuit in two equals parts, now you got two pieces and both piece represents a value : ½

Portion 1 : ½

Portion 2 : ½

We can represent Halves by using numerous ways such as :

- Cutting the object in two equal portions.
- Drawing a shape and then colouring or shading the half potion.
- Using pie chart to represent the half value,
- Using the number line to show the place value of half.
- Graph charts can be used to represent halves.
- You can find an object or body and divide it in half with scale or thread.
- Always divide the portions which are equal in mass and length.
- Never divide the object just by its surface level or only one portion.

Decimal & Fraction

Decimal and Fraction are two ways to represent the place values of rational numbers on a number line. Both are based on multiplication and division operation methods. Decimal gives an approximate outcome of the value whereas fraction gives an accurate outcome. Both consist of numerator and denominator. In decimal, numerator and denominator are separated by a Decimal point '.' whereas in fraction, numerator and denominator are separated by '/'. Numerator represents the top portion while denominator

represents the portion at the bottom. Numerator represents whole numbers and denominator is a non-zero integer. Decimal starts with Tenth as a base whereas fraction, also known as Proper fraction, is an absolute value that starts with zero as a base. When the value is not absolute, it is called improper fraction or mixed fraction.

Conversion and Why?

Conversion is necessary to compare two values and choose the most accurate outcome. Decimal gives us an approximate answer and there is a long series of values after decimal which does not give a clear result, it can go infinite. That's why a fraction is used to give an accurate result in comparison to a decimal system. In fraction, the place values are shown in the form of p/q and it is easy to understand the values shown in fractional form.

Converting **0.5 as a fraction**

To solve the equation of 0.5 as a fraction, we need to remove the decimal point, now we get 5/10 in the simplified form.

Now reduce 5/10 to its lowest form. To find the lowest form, you need to find the multiple of 5 and 10, the number should be multiplied and divided by both numbers. 2 is the lowest form of 5/10.

We get ½ and this is the Half.

If you divide a whole portion in half, the decimal value will be shown as 0.5,

when you divide 1 by 2, there will be a problem because the 1 is less than 2, then how 2 will divide it.

Here you put ‘ . ’ and it gives 0 on the place value of 10th.

Now 1 becomes 10 while you put 0. in ones place.

10th part is divided by 2 and the answer is 0.5,

5 on the right side of . will be represented in tenth place.

Decimal (0.5) = Fraction (½)