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**Fraction: Introduction**

**Fraction:** A part of a whole is known as fraction. It is written in the form of p/q, i.e. in the form of numerator and denominator. Following are some examples of fraction.



We need the use of fraction when we have to denote a part of whole.

For example when we have to denote half, quarter, three out of four, six out of 9, etc. of an object, we denote it using fraction. Suppose we divide a cake in 8 equal parts, and we have to denote 3 parts of that, then it is denoted by fraction.

½ means one out of two.
1/3 means one out of three.
¾ means three out of four.

A fraction has two parts. One is numerator and second is denominator.



Here; 2 is numerator and 5 is denominator. Denominator shows the total parts and numerator shows the number of equal parts. In this fraction there are total 5 parts. The fraction shows 2 out of five parts.

**Types of Fractions**

There are three major types of fractions:

* Proper Fraction
* Improper Fraction
* Mixed Fraction

Proper Fractions

Fractions where numerator is always less than the denominator.

It is called proper because the number of parts will always be lesser than the total number of parts. For e.g. 1/3, 1/6, 2/7, 9/10 and so on.

The value of a proper fraction will always be less than 1.

 Improper Fractions

Fractions where numerator is always more than the denominator.

It is called improper because the number of parts will be greater than the total number of parts. For e.g. 5/3, 9/6, 8/7, 14/10 and so on.

The value of a proper fraction will always be greater than 1.

Mixed Fraction

Fractions where there is a combination of a whole and a fractional part. For e.g.

 

All Improper fractions can be expressed as mixed fractions

**Like and Unlike Fractions**

Like fractions are fractions with same denominator. For eg ½, 15/2, 19/2 and so on.

Unlike fractions are fractions with different denominators. For e.g. 16/5, 7/8, ½, 2/5, 2/10.

It is important to note that like and unlike fractions are decided only on the basis of denominator. The value of numerator does not matter.