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Ratio:- There are two ways of comparison:
   (i) By taking difference
   (ii) By division.
  The (ii) way is better than (i) way.

The comparison by division is called the ratio. In this way, we see how many times one quantity is to the other quantity.The ratio of a and b is denoted by a:b.
For example: (i) Apala got 75 marks and Meenu got 25 marks in an examination, then we can say that the marks obtained by Apala are three times the marks obtained by Meenu.

(ii) Apala's weight is 20 kg and her father's weight is 60 kg. We say that Apala's father's weight and Pala's weight are in the ratio = 60/20 =3/2= 3 : 1.

For comparison by ratio, the two quantities must be in the same units. If they are not, they must be expressed in the same units before the ratio is taken.

The same ratio may occur in different situations.
For example,
(i) Length of a room is 15 cm and breadth is 10 cm.So, the ratio of length of the room to the breadth of the room = 15/10 = 3/2= 3 : 2

(ii) There are 30 girls and 20 boys in a class. Then, ratio of the number of girls to the number of boys = 30/20 = 3/2 = 3 : 2.

A ratio may be treated as a fraction. Thus, the ratio 2 : 3 may be treated as 2/3.

A ratio equivalent to a given ratio can be obtained by multiplying or dividing the numerator and denominator by the same number. Thus, few ratios equivalent to 2 : 3 are 4 : 6, 6 : 9, 8 : 12, etc.

Similarly, few ratios equivalent to 64 : 32 are 32 : 16, 16 : 8, 8 : 4, 4 : 2, 2 : 1, etc. If the fractions corresponding to equivalent ratios are equivalent, then the two ratios are equivalent.

The orders in which the quantities are taken to express their ratio is important. Note that the ratio 2 : 3 is different from 3 : 2.

A ratio can be expressed in its lowest form. For example, ratio 60 : 24 is 60/24 in the form of a fraction. In its lowest form 60/24 = 5/2 = 5 : 2. thus, in its lowest form ratio 60 : 24 is treated as 5 : 2.