Fractions As Part of A Group of Things

You already learned that a fraction is a part of a whole. For example, to share a pizza between three people, each person will get a fraction of the whole pizza which is $\frac{1}{3}$

In this section you'll learn the fraction as the part of a group of things. For example, consider there are 24 students in grade 6 altogether. There are 12 boys and 12 girls. In other words it can be said that half of the class is girls and half of the class is boys. Hence, half of 24 is 12 and it can be written as below:

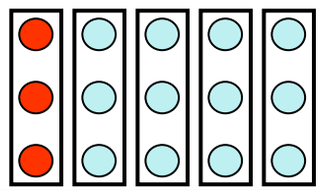
$\frac{1}{2}$ **of 24 = 12** Notice that, "of" means "times" (x), because $\frac{1}{2} \times 24 = 12$

Example :

Consider another example of colored balls in a bag. There are 15 balls in a bag and one-fifth of balls are red and one-third of the balls are blue and rest of them are green. Find how many balls are red, how many blue and how many green?

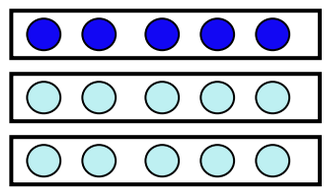
Number of red balls $= \frac{1}{5}$ of $15 = \frac{1}{\cancel{5}} \times \overset{3}{\cancel{15}} = 3$

It can be shown as a picture on the right. Divide the 15 balls into 5 groups. Number of balls in a group is 3, which gives the answer to one-fifth of 15.



Number of blue balls $= \frac{1}{3}$ of $15 = 5$

It can be shown as a picture as on the right. Divide the 15 balls into 3 groups. Number of balls in a group is 5, which gives the answer to one-third of 15.



Number of green balls = rest of the balls = 15 - 3 - 5 = 7