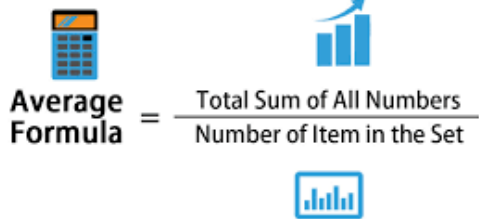Chapter - 11

Average

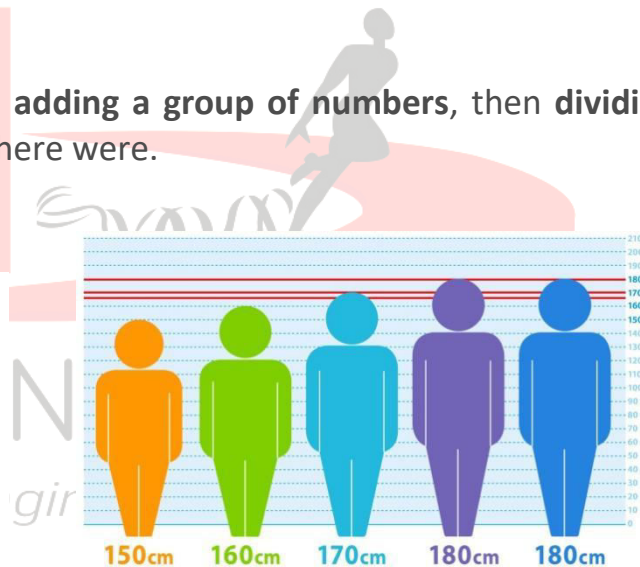**STUDY NOTES**

This lesson will help you to:

- Know about the concept of average
- Meaning of average
- Need of finding average
- Finding average of given data

Average

An average is a number obtained by **adding a group of numbers**, then **dividing the sum** by the number of **numbers** there were.

(No. of person =5)

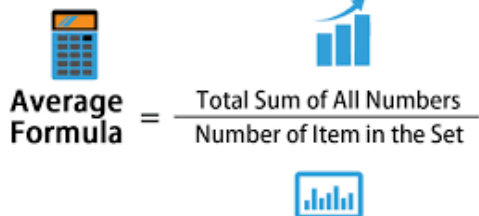The average height of the given data = $\dfrac{150 + 160 + 170 + 180 + 180}{5}$

$= \dfrac{840}{5}$ = 168 cm

From the above example it is clear that

> ✧ An average is a number which roughly between the smallest and the largest number / quantity.
> ✧ It gives an idea of the general value of a group.
> ✧ The average is the arithmetical mean value of the number of given values/ quantities.

FINDING THE SUM OF THE QUANTITIES IF AVERAGE IS GIVEN:

As we already know

$$\text{Average Formula} = \frac{\text{Total Sum of All Numbers}}{\text{Number of Item in the Set}}$$

> ➢ **Sum of the given quantities = Average x No. of items/ quantities**
>
> > ❖ Example: The average weight of 12 rice bags is 98 kg. What is the total weight of the rice bags?
> >
> > > • SOLUTION: Average weight= 98 kg
> > >
> > > No. of bags = 12
> > >
> > > The total weight of the rice bags = 98 x 12 = **1176 kg.**

POINTS TO REMEMBER:

- ✦ We use the word *'Average'* almost every day.
- ✦ Average is used to represent a large set of numbers with a single number.
- ✦ It is the number falls between the smallest and the greatest value of the given numbers.
- ✦ It gives idea about the general value of a group.
- ✦ It is the arithmetical mean value of given numbers.
- ✦ *Average =* **Sum of the numbers**

    Number of items/ quantities

- ✦ Sum of the numbers= **Average x Number of items/ quantities**

MIND MAP

AVERAGE

Introduction – Using the word *'Average'* in the day to day life.

Ex: Virat Kohli's Average run in ODI is 63.

The Average rainfall received in the month of July is 256mm.

Need of finding Average.

Finding Average

Sum of the total items given

Dividing the sum by total number of items

Example: sum of height of 5 students =840 cm

Average = 840/5 = 168cm

Finding the sum of the items if Average is given

Average x No. of items