ODM EDUCATIONAL GROUP
Changing your Tomorrow

MONTH : NOVEMBER

SESSION : 4

CLASS : V

SUBJECT : MATHEMATICS

CHAPTER NUMBER: 11

CHAPTER NAME : AVERAGE

SUB-TOPIC : INTRODUCTION, EXERCISE 11 A Q. NO.1 & 2

Website: www.odmegroup.org
Email: info@odmps.org
Toll Free: 1800 120 2316
Sishu Vihar, Infocity Road, Patia, Bhubaneswar- 751024

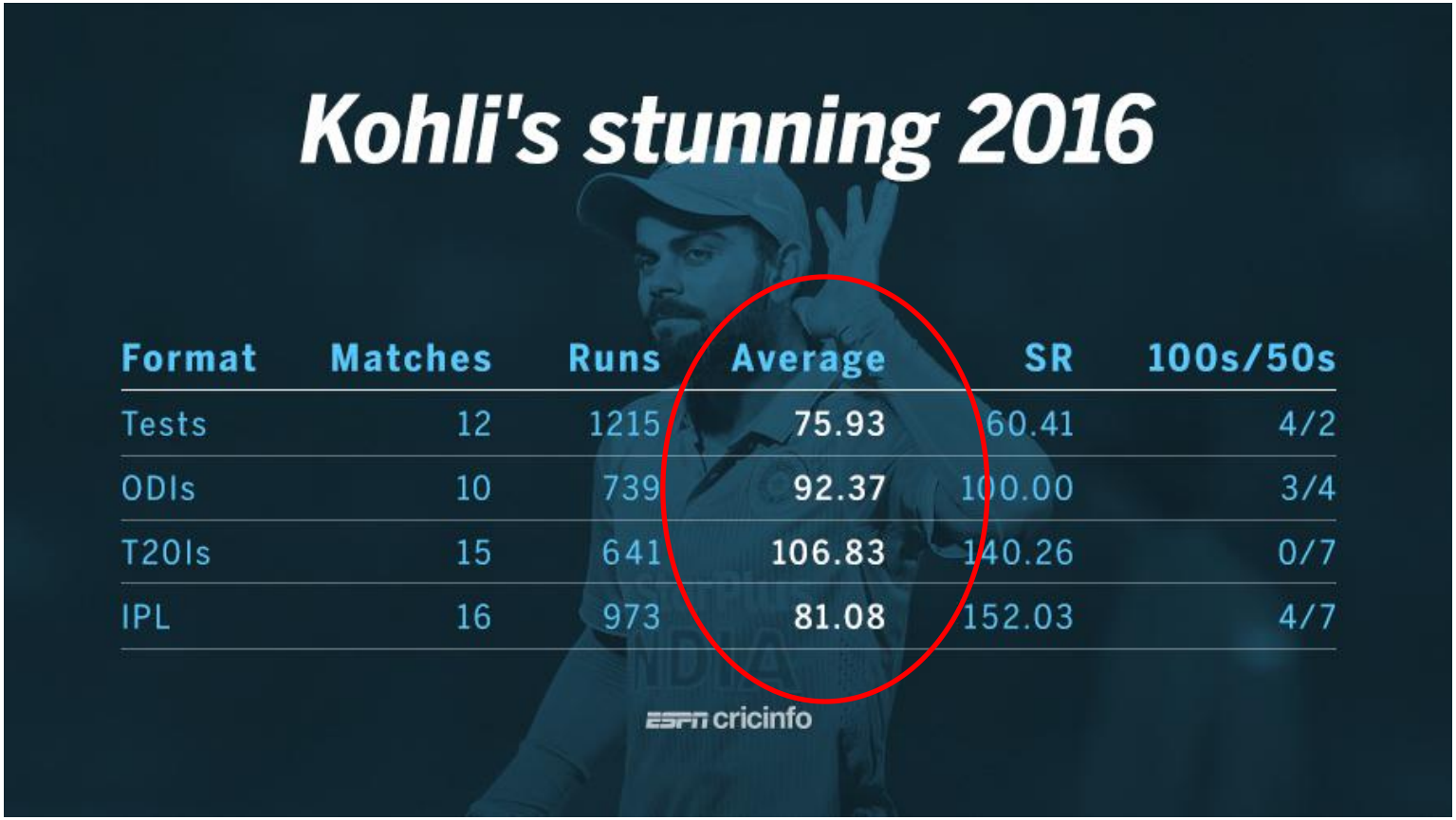
ODM EDUCATIONAL GROUP
Changing your Tomorrow

LEARNING OBJECTIVE :

Enable the students

- To know the use of the word "*Average*"
- Know about the concept of average
- Need of finding average
- Finding average of given data

AVERAGE

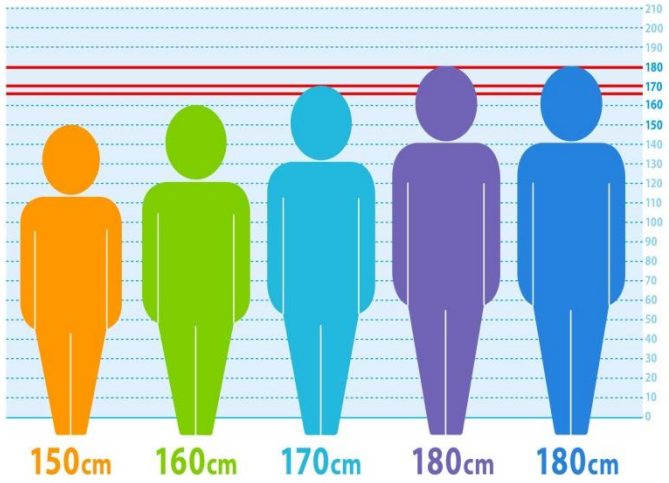


Have you ever heard of the word "***Average***"?

AVERAGE

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

Example :
What is the average height of these 5 people?



$$\text{Average} = \frac{\text{Sum of the heights}}{\text{Number of people}} = \frac{150 + 160 + 170 + 180 + 180}{5}$$

$$= \frac{840}{5} = \mathbf{168\ cm.}$$

AVERAGE

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.

AVERAGE

EXERCISE 11 A

ODM EDUCATIONAL GROUP
Changing your Tomorrow

➢ 1. Find the average

a) 50, 41, 47, 48, 40, 44

$$\text{Average} = \frac{\text{Sum of the quantities}}{\text{Number of quantities}}$$

$$= \frac{50 + 41 + 47 + 48 + 40 + 44}{6}$$

$$= \frac{270}{6} = 45$$

b) 10, 20, 30, 40, 50, 60, 70, 80, 90, 100

$$\text{Average} = \frac{\text{Sum of the quantities}}{\text{Number of quantities}}$$

$$= \frac{10 + 20 + 30 + 40 + 50 + 60 + 70 + 80 + 90 + 100}{10}$$

$$= \frac{550}{10} = 55$$

AVERAGE

EXERCISE 11 A

ODM EDUCATIONAL GROUP
Changing your Tomorrow

➢ 1. Find the average

c) 35, 42, 31, 53, 16, 34, 27

Average = $\frac{\text{Sum of the quantities}}{\text{Number of quantities}}$

$= \frac{35 + 42 + 31 + 53 + 16 + 34 + 27}{7}$

$= \frac{238}{7}$ **= 34**

d) 24, 21, 26, 25, 18, 20, 27, 23

Average = $\frac{\text{Sum of the quantities}}{\text{Number of quantities}}$

$= \frac{24 + 21 + 26 + 25 + 18 + 20 + 27 + 23}{8}$

$= \frac{184}{8}$ **= 23**

AVERAGE

EXERCISE 11 A

- 1. Find the average

e) $\frac{3}{8}, 1\frac{1}{4}, 2\frac{5}{6}, 4\frac{1}{2}, 6\frac{4}{3}$

$= \frac{3}{8} + \frac{5}{4} + \frac{17}{6} + \frac{9}{2} + \frac{22}{3}$

L.C.M. of 8, 4, 6 ,2, 3= 24

$\frac{= 9 + 30 + 68 + 108 + 176}{24} = \frac{391}{24}$

The number of quantities given = 5

Average = $\frac{391}{24} \div 5 = \frac{391}{24} \times \frac{1}{5} = \frac{391}{120} = \mathbf{3\frac{31}{120}}$

AVERAGE

EXERCISE 11 A

2. The rainfall in Jamshedpur for 6 consecutive years was 28.5 cm, 30.25cm, 32.4 cm, 31.6cm, 24cm and 30.25cm. Find the average rainfall of Jamshedpur.

Solution:

The rainfall for 1st year= 28. 5 cm

The rainfall for 2nd year= 30.25 cm

The rainfall for 3rd year= 32.4 cm

The rainfall for 4th year= 31.6 cm

The rainfall for 5th year = 24 cm

The rainfall for 6th year = 30. 25 cm

AVERAGE

EXERCISE 11 A

Average = $\frac{\text{Sum of the quantities}}{\text{Number of quantities}}$

$= \frac{28.5 + 30.25 + 32.4 + 31.6 + 24 + 30.25}{6}$

$= \frac{177}{6}$ **= 29.5 cm**

Thus the average rainfall of Jamshedpur is **29.5 cm.**

ROUGH

```
      29.5
   ____________
6 | 177.0
    12
    ---
     57
     54
     ---
      30
      30
      --
       0
```

- **Complete exercise 11 A Q.No. 3 & 4 in the note book.**

ODM EDUCATIONAL GROUP
Changing your Tomorrow

Students are able to:

- Find the average of given data
- Understand the concept and use of the word "*Average*"

ODM EDUCATIONAL GROUP
Changing your Tomorrow

THANKING YOU

ODM EDUCATIONAL GROUP