

Chapter- 11

AVERAGE

WORKSHEET

1. Fill in the blanks :

- a. The mean of a set of values is the sum of the values divided by the number of values in the set.
- b. Average is a number which is roughly between the smallest and the largest number or quantity.
- c. The average gives us an idea about the general value of a group.
- d. The average is the arithmetical mean value of the number of given values.
- e. Sum of the values = Average \times No. of quantities ,

2. Do as directed :

- a) Find the average of 1
- st
- five prime numbers.

Ans. First five prime numbers are 2, 3, 5, 7 and 11

$$= \frac{2+3+5+7+11}{5} = \frac{28}{5} = 5.6$$

- b) What is the average weight: 14g, 16g, 36g, 42g

Ans. $\frac{14g+16g+36g+42g}{4} = \frac{108}{4} = 27$

- c) Find the average if number of item is 15 and the total value of item is 105 .

Ans. Total value = 105
No. of items = 15

$$\text{Average} = \frac{105}{15} = 7$$

- d) Find the average of
- $\frac{6}{7}, \frac{2}{5}, \frac{11}{7}$

Ans. $\frac{6}{7} + \frac{2}{5} + \frac{11}{7} = \frac{30+14+55}{35} = \frac{99}{35}$

The number of quantities given = 3

$$\text{Average} = \frac{99}{35} \div 3 = \frac{99}{35} \times \frac{1}{3} = \frac{33}{35}$$

e) Find the missing value: No. of items are 21 and average is 21 then Sum of the items is

Ans.
$$\begin{aligned} \text{No. of items} &= 21 \\ \text{average} &= 21 \\ \text{Sum of items} &= ? \quad 21 \times 21 = 441 \end{aligned}$$

3. Solve as per the given instructions:

a) The average height of a family of five is 150cm, if the height of 4 family members is 153cm, 150cm, 151cm, and 152cm, find the height of the fifth member.

Ans. The average is 150cm
 Then the total height of the members is $= (150 \times 5)$
 $= 750\text{cm}$
 The total height of 4 members is
 $153 + 150 + 151 + 152 = 606\text{cm}$
 The height of the fifth member is $= (750 - 606)\text{cm}$
 $= 144\text{cm}$

b) The average of 5 numbers is 25 and the average of another 5 numbers is 35. Find the average of the 10 numbers taken together.

Ans. Average of 5 numbers is 25
 No of items = 5
 Average of 5 numbers is 35
 No of items = 5

$$\frac{\text{Total Value}}{\text{Total Items}} = \frac{25 + 35}{5 + 5} = \frac{60}{10} = 6$$

c) Mini's father earns on an average ₹ 9800 a week. How much does he earn in 52 weeks?

Ans. mini's father earns on an average a week = ₹ 9800

$$\begin{aligned} 52 \text{ weeks} &= 9800 \times 52 \\ &= 5,09,600 \end{aligned}$$

- d) 8 students of a class went for medical checkup. The table below shows the record of their weight and age. Find the average **age** and **weight** of the students

Name	Age	Weight
Sonali	11 years 10 months	33kg
Vandana	12 years	34kg
Rohit	12 years 7 months	38kg
Shweta	11 years 6 months	33kg
Vaibhav	13 years	36kg
Manik	12 years	32kg
Zakir	11 years 11 months	36kg
Chris	13 years 2 months	38kg

Ans.

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- e) Find the average of 11.35, 12.65, 11, 7.25, 14.85, 15.55

Ans. $11.35 + 12.65 + 11 + 7.25 + 14.85 + 15.55 = 72.65$

$$\text{Average} = \frac{72.65}{6} = 1210.83 \dots$$

Q3
D Age

$$\text{Sonali} = 11 \text{ years } 10 \text{ months} \\ 12 \times 11 + 10 = 142 \text{ months}$$

$$\text{Vandana} = 12 \times 12 = 144 \text{ months}$$

$$\text{Rohit} = 12 \times 12 + 7 = 151 \text{ months}$$

$$\text{Shweta} = 12 \times 11 + 6 = 138 \text{ months}$$

$$\text{Vaibhav} = 13 \times 12 = 156 \text{ months}$$

$$\text{Manik} = 12 \times 12 = 144 \text{ months}$$

$$\text{Zakir} = 11 \times 12 + 11 = 143 \text{ months}$$

$$\text{Chris} = 13 \times 12 + 2 = 158 \text{ months}$$

$$\text{Total age of 8 students} = 1176 \text{ months}$$

$$\text{Average age} = \frac{1176}{8} = 147 \text{ months}$$

$$\text{Total weight of 8 students} = 33 + 34 + 38 + 33 + 36 + 32 + 36 + 38 \\ = 280 \text{ kg}$$

$$\text{Average weight} = \frac{280}{8} = 35 \text{ kg}$$