

Chapter- 11

AVERAGE

WORKSHEET

1. Fill in the blanks :

- a. The average 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 the biggest 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 $\times$ Number of Quantity.

2. Do as directed :

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

Ans. $\frac{28}{5}$

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

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

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

Ans. $\frac{105}{15} = 7$

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

LCM = 35

Ans.

$$= \frac{6 \times 5 + 2 \times 7 + 11 \times 5}{35}$$

$$= \frac{30 + 14 + 55}{35} = \frac{99}{35}$$

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

Ans.

$$\begin{array}{r} 21 \\ \times 21 \\ \hline 21 \\ + 420 \\ \hline 441 \end{array} = \underline{441}$$

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.

- 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.

$$\begin{aligned} \text{Average of 5 numbers} &= 25 \\ \text{Sum of 5 numbers} &= 25 \times 5 = 125 \\ \text{The average of another 5 numbers} &= 35 \\ \text{Sum of 5 numbers} &= 35 \times 5 = 175 \\ \text{Sum of 10 numbers} &= 125 + 175 = 300 \\ \text{Average of 10 number taken together} &= \frac{300}{10} = 30 \end{aligned}$$

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

Ans. $\Rightarrow$ Mini's father earns average in a week = ₹ 9800

$$\begin{aligned} \text{Mini's father earns in 52 weeks} &= 9800 \times 52 \\ &= ₹ 5,09,600 \end{aligned}$$

Hence, Mini's father earns ₹ 5,09,600 in 52 weeks.

- 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

Total age of 8 students = 1,176 months

Ans. average age = $\frac{1,176}{8} = 147$ months = 12 years 3 months

Total weight of 8 students = 280 Kg

average weight = $\frac{280}{8} = 35$ Kg

∴ The average weight is 35 Kg and age is 12 years 3 months.

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

Ans. The average = $\frac{72.65}{6} = 12.10$
