



Class-5

Subject-Mathematics

Chapter-8 (Average)

Lecture Sheet – 3

Word Problem

Formula:

$$1. \text{ Average} = \frac{\text{Sum of quantities}}{\text{Number of quantities}}$$

$$2. \text{ Sum of quantities} / \text{Sum} / \text{Total} = \text{Average} \times \text{Number of quantities}$$

Example – 1: The exam scores of Sohel and Hamida in Bangla, Mathematics, English, Science and Social study are as follows:

Subjects	Bangla	Math	English	Science	BGS
Sohel	68	95	56	90	65
Hamida	72	78	84	80	86

Calculate each average score and determine which student performed better in this exam.

Solution:

$$\begin{aligned} \text{Total number of Sohel} &= 68+95+56+90+65 \\ &= 374 \end{aligned}$$

$$\text{Number of quantities} = 5$$

We Know,

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

$$= \frac{374}{5}$$
$$= 74.8$$

Again,

$$\text{Total number of Soheli} = 72+78+84+80+86$$
$$= 400$$

$$\text{Number of quantities} = 5$$

We Know,

$$\text{Average} = \frac{\text{Sum of quantities}}{\text{Number of quantities}}$$
$$= \frac{400}{5}$$
$$= 80$$

∴ Average number of Soheli < Average number of Hamida

∴ $74.8 < 80$

∴ Hamida performed better in this exam.

Ans : Average number of Soheli 74.8,

Average number of Hamida 80

Hamida performed better in this exam.

Example – 2: The average age of 3 children and father is 23 years. What is their total age?

Solution:

Given,

$$\text{Average age} = 23 \text{ years}$$

$$\text{Number of quantities} = 3+1 = 4$$

We know,

$$\text{Total} = \text{Average} \times \text{Number of quantities}$$

$$= (23 \times 4) \text{ years}$$

$$= 92 \text{ years}$$

Ans : 92 years.

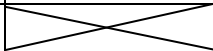
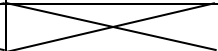
Exercise

1. Reza recorded the time for his home study from Saturday to Thursday last week, and made the following table:

Day	Sat	Sun	Mon	Tue	Wed	Thu
Hour	2	1.5	1	1.5	1	2

How many hours a day in average did he study at home?

2. The following table shows the mathematics test scores of Group A and Group B students. The number of students in Group A is 5 and Group B is 3.

Group A	59	67	92	80	85
Group B	82	78	65		

Find the average score of all the students in Group A and Group B.

3. The teacher divided the students in the class into the boy group and girl group, and told them to calculate the average number of family members in each group. Then the students made the table as shown below:

	Number of students	Average number of family members
Boy group	18	4.5
Girl group	12	5.3

Find the average number of family members in the whole class.