Cosmo School

## Class-5

## Subject-Mathematics

## Chapter-8 (Average)

## Lecture Sheet – 3

## Word Problem

### Formula:

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

2. Sum of quantities / Sum / Total = Average × 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:

Total number of Sohel = 68+95+56+90+65

= 374

Number of quantities = 5

We Know,

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

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

$$= 74.8$$

Again,

Total number of Sohel = 72+78+84+80+86

= 400

Number of quantities = 5

We Know,

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

$$= \frac{400}{5}$$

$$= 80$$

∵ Average number of Sohel < Average number of Hamida

∵ 74.8 < 80

∴ Hamida performed better in this exam.

Ans : Average number of Sohel 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,

Average age = 23 years

Number of quantities = 3+1 = 4

We know,

Total = Average × Number of quantities

= (23 × 4) years

= 92 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 ad 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.