Cosmo School

Class-5

Subject-Mathematics

Chapter-8 (Average)

Lecture Sheet – 5 (Solution)

1. The table shows below the amount of milk taken from one cow last week.

Day	Saturday	Sun	Mon	Tues	Wed	Thurs	Fri
Milk (L)	16	18	17	13	17	14	16

a. Find the average amount of milk that the cow gave in the last 3 days.
b. Find the average amount of milk that the cow gave in the last 4 days.
c. Find the difference of the average amount of milk between the 1st 3 days and last 4 days.

Solution:

a) Total amount of milk that the cow gave in the last 3 days

= (17+14+16) L

= 47 L

Number of days = 3

We know,

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

$= \frac{47}{3}$ L

= 15.6 L

Ans: 15.6 L.

b) Total amount of milk that the cow gave in the last 4 days

= (13+17+14+16) L

= 60 L

Number of days = 4

We know,

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

$= \frac{60}{4}$ L

= 15 L

Ans: 15 L.

c) Total amount of milk that the cow gave in the 1st 3 days

= (16+18+17) L

= 51 L

Number of days = 3

We know,

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

$= \frac{51}{3}$ L

= 17 L

From 'b' we get, the average amount of milk that the cow gave in last 4 days = 15 L.

∴ The difference of the average amount of milk between the 1st 3 days and last 4 days = (17-15) L = 2 L

Ans: 2 L.

2. The price of 7 tennis ball is 406 taka. The average price of 1st 3 balls is 58 taka and last 3 balls are 55 taka.

a. What is the average price of the balls?
b. What is the price of 4th ball?
c. Difference between the total price of 1st 3 balls and last 3 balls is the average price of 10 pens. What is the total price of 10 pens?

Solution:

a) Total price of 7 tennis ball = 406 taka

∴ Average price = (406 ÷ 7) taka

= 58 Taka

Ans: 58 Taka.

b) Given,

The average price of 1st 3 balls is 58 taka.

The average price of last 3 balls are 55 taka.

∴ Total price of 1st 3 balls = Average × Number of quantities

= (58 × 3) Taka

= 174 Taka

∴ Total price of last 3 balls = Average × Number of quantities

= (55 × 3) Taka

= 165 Taka

∴ Total price of 1st 3 balls and last 3 balls = (174+165) Taka

= 339 Taka

∴ Price of 4th ball = (406-339) Taka

= 67 Taka

Ans: 67 Taka.

c) From 'b' we get,

Total price of 1st 3 balls = 174 Taka

Total price of last 3 balls = 165 Taka

∴ Difference between the total price of 1st 3 balls and last 3 balls

= (174-165) Taka

= 9 Taka

According to the question, the average price of 10 pens = 9 Taka

∴ Total price of 10 pens = Average × Number of quantities

= (9 × 10) Taka

= 90 Taka

Ans: 90 Taka.

3. In one day series of 5 matches. Nasir made 60, 30, 0, 45 and 15 runs respectively.

a. What was his average run for the 1st 3 matches?
b. What was the average runs for the last 4 matches?
c. What was his average runs for the 1st, 3rd and 5th matches?
d. What was his average run for all the matches?

Solution:

a) Total run of 1st 3 matches = 60+30+0
= 90

Number of matches = 3

We know,

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

$= \frac{90}{3}$ runs

= 30 runs

Ans: 30 runs.

b) Total run of last 4 matches = 30+0+45+15
= 90

Number of matches = 4

We know,

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

$= \frac{90}{4}$ runs

= 22.5 runs

Ans: 22.5 runs.

c) Total runs of the 1st, 3rd and 5th matches = 60+0+15
= 75

Number of matches = 3

We know,

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

$= \frac{75}{3}$ runs

= 25 runs

Ans: 25 runs.

d) Total run of the 5 matches = 60+30+0+45+15

= 150

Number of matches = 5

We know,

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

$= \frac{150}{5}$ runs

= 30 runs

Ans: 30 runs.

4. During the month of December the average rice sold in a shop during the 1st 15 days was 41 kg. The next 15 days average was 34 kg and 22 kg rice sold on the last day.
   a. What is the total amount of rice sold in the first 15 days?
   b. What is the total amount of rice sold in the month?
   c. If the 53 kg rice sold in last day, what is the average daily sold in this month?

Solution:

a) Given, the average amount of rice sold in the first 15 days = 41 kg

∴ The total amount of rice sold in the first 15 days

= Average × Number of quantities

= (41 × 15) Kg

= 615 Kg

Ans: 615 Kg.

b) From 'a' we get, the total amount of rice sold in the first 15 days = 615 kg

The average amount of rice sold in the last 15 days = 34 kg

∴ The total amount of rice sold in the last 15 days

= Average × Number of quantities

= (34 × 15) Kg
= 510 Kg

And 22 kg rice sold on the last day

∴ The total amount of rice sold in the month = (615+510+22) Kg
= 1147 Kg

Ans: 1147 Kg.

c) If the 53 kg rice sold in last day then the total amount of rice sold in the month = (615+510+53) Kg
= 1178 Kg

Number of day in month of December = 31 days

∴ Average = (1178 ÷ 31) Kg
= 38 Kg

Ans: 38 Kg.