Statistics

PRACTICE SET 54 [PAGE 96]

Practice Set 54 | Q 1 | Page 96

The daily rainfall for each day of a week in a certain city is given in millimetres. Find the average rainfall during the week.

9, 11, 8, 20, 10, 16, 12

Solution:

$$\text{Average rainfall} = \frac{\text{Sum of the total rainfall}}{\text{Number of days}}$$

$$= \frac{9 + 11 + 8 + 20 + 10 + 16 + 12}{7}$$

$$= \frac{87}{7}$$

$$= 12.29 \text{ mm}$$

Practice Set 54 | Q 2 | Page 96

During the annual function of a school, a Women's Self-help Group had set up a snack stall. Their sales every hour were worth Rs 960, Rs 830, Rs 945, Rs 800, Rs 847, Rs 970 respectively. What was the average of the hourly sales?

Solution:

$$\text{Average hourly sale} = \frac{\text{Total sale}}{\text{Total number of hours}}$$

$$= \frac{960 + 830 + 945 + 800 + 847 + 970}{6}$$

$$= \frac{5352}{6}$$

= 892

Thus, the average of the hourly sale is Rs 892.

Practice Set 54 | Q 3 | Page 96

The annual rainfall in Vidarbha in five years is given below. What is the average rainfall for those 5 years? 900 mm, 650 mm, 450 mm, 733 mm, 400 mm

Solution:

$$\text{Average rainfall for 5 years} = \frac{\text{Total rainfall in 5 years}}{5\text{Years}}$$

$$= \frac{900 + 650 + 450 + 733 + 400}{5}$$

$$= \frac{3133}{5}$$

$$= 626.6$$

Thus, average rainfall for 5 years is 626.6 mm.

Practice Set 54 | Q 4 | Page 96

A farmer bought some sacks of animal feed. The weights of the sacks are given below in kilograms. What is the average weight of the sacks?

49.8, 49.7, 49.5, 49.3, 50, 48.9, 49.2, 48.8

Solution:

$$\text{Average weight} = \frac{\text{Total weight of all the sacks}}{\text{Total number of sacks}}$$

$$= \frac{49.8 + 49.7 + 49.5 + 49.3 + 50 + 48.9 + 49.2 + 48.8}{8}$$

$$= \frac{395.5}{8}$$

$$= 49.4$$

Thus, the average weight of the sacks is 49.4 kg.

PRACTICE SET 55 [PAGE 99]

Practice Set 55 | Q 1 | Page 99

The height of 30 children in a class is given in centimetres. Draw up a frequency table of this data.

131, 135, 140, 138, 132, 133, 135, 133, 134, 135, 132, 133, 140, 139, 132, 131, 134, 133, 140, 140, 139, 136, 137, 136, 139, 137, 133, 134, 131, 140

Solution:

Height	Tally Marks	Children
131	|||	3
132	|||	3
133	𝍸	5
134	|||	3
135	|||	3
136	||	2
137	||	2
138	|	1
139	|||	3
140	𝍸	5
Total		**30**

Practice Set 55 | Q 2 | Page 99

In a certain colony, there are 50 families. The number of people in every family is given below. Draw up the frequency table.

5, 4, 5, 4, 5, 3, 3, 3, 4, 3, 4, 2, 3, 4, 2, 2, 2, 2, 4, 5, 1, 3, 2, 4, 5, 3, 3, 2, 4, 4, 2, 3, 4, 3, 4, 2, 3, 4, 5, 3, 2, 3, 2, 3, 4, 5, 3, 2, 3, 2

Solution:

People	Tally Marks	Families
1	|	1
2	𝍸 𝍸 |||	13
3	𝍸 𝍸 𝍸 |	16
4	𝍸 𝍸 |||	13
5	𝍸 ||	7
Total		**50**

Practice Set 55 | Q 3 | Page 99

A dice was cast 40 times and each score noted is given below. Draw up a frequency table for this data.

3, 2, 5, 6, 4, 2, 3, 1, 6, 6, 2, 3, 5, 3, 5, 3, 4, 2, 4, 5, 4, 2, 6, 3, 3, 2, 4, 3, 3, 4, 1, 4, 3, 3, 2, 2, 5, 3, 3, 4

Solution:

Surface	Tally marks	Frequency
1	||	2
2	𝍸 |||	8
3	𝍸 𝍸 |||	13
4	𝍸 |||	8
5	𝍸	5
6	||||	4
Total		**40**

Practice Set 55 | Q 4 | Page 99

The number of chapatis that 30 children in a hostel need at every meal is given below. Make a frequency table for these scores.

3, 2, 2, 3, 4, 5, 4, 3, 4, 5, 2, 3, 4, 3, 2, 5, 4, 4, 4, 3, 3, 2, 2, 2, 3, 4, 3, 2, 3, 2

Solution:

Chapatis	Tally Marks	Children
2	𝍸 ||||	9
3	𝍸 𝍸	10
4	𝍸 |||	8
5	|||	3
Total		**30**