

CHAPTER-5 | Tales by Dots and Lines

QUIZ
PART-06

1. If the mean and the number of observations are known, an unknown value can be found using —

- A. Subtraction only
- B. Total sum of observations
- C. Median
- D. Range (B)

Explanation : First find the total sum using Mean $\times$ Number of Observations, then determine the missing value.

2. The total of all observations is obtained by —

- A. Mean $\div$ Number of Observations
- B. Mean + Number of Observations
- C. Mean $\times$ Number of Observations
- D. Maximum – Minimum (C)

Explanation : Total Sum = Mean $\times$ Number of Observations.

3. If one value is missing from a data set, it can be found by subtracting the known values from the —

- A. Median
- B. Total sum
- C. Smallest value
- D. Largest value (B)

Explanation : Missing Value = Total Sum – Sum of Known Values.

4. Coach Balwan's wrestler problem is an example of finding a —

- A. Median
- B. Frequency
- C. Missing observation
- D. Range (C)

Explanation : The chapter uses the mean to determine an unknown weight.

5. If a value is recorded 3 more than its actual value, the calculated total is —

- A. 3 less than actual
- B. Correct
- C. 3 more than actual
- D. Double the actual (C)

Explanation : The total increases by exactly 3 because of the recording error.

6. If the total sum decreases by 3 while the number of observations remains unchanged, the mean will —

- A. Increase
- B. Decrease
- C. Remain unchanged
- D. Double (B)

Explanation : A smaller total with the same number of observations gives a smaller mean.

7. The mean of 3 numbers is 7. If two numbers are 5 and 6, the third number is —

- A. 8
- B. 9
- C. 10
- D. 11 (C)

Explanation : Total = $7 \times 3 = 21$. Third number = $21 - (5 + 6) = 10$.

8. The mean of 4 numbers is 9. One value was taken as 6 instead of 12. The correct mean is —

- A. 9
- B. 10
- C. 10.5
- D. 11 (C)

Explanation : The total should increase by 6. New mean = $(36 + 6) \div 4 = 10.5$.

9. A recording error in one observation affects the —

- A. Total sum
- B. Mean
- C. Both total sum and mean
- D. Neither mean nor sum (C)

Explanation : Any error changes the total and therefore changes the mean.

10. The main idea of this section is to use the mean for —

- A. Drawing graphs
- B. Finding missing or corrected values
- C. Arranging data
- D. Finding the median only (B)

Explanation : The chapter focuses on determining unknown observations using the concept of mean.