

Class VIII | 2026-27

Maximum Marks: 25

1. All 13 questions are compulsory. The paper has four sections: A, B, C and D.
2. Section A - 5 marks; Section B - 8 marks; Section C - 9 marks; Section D - 3 marks.
3. Choose one correct option in Section A. Show the necessary working in Sections B, C and D.
4. Study the given data and images carefully before answering the related questions.

1. The mean of two odd numbers is:
(A) Never a whole number
(B) Always even
(C) Always a whole number, but it may be odd or even
(D) Always odd
2. Which symbol begins the spreadsheet formulas =SUM(B2:B5) and =AVERAGE(C2:C5)?
(A) : (B) /
(C) = (D) ,
3. The dots show how many calls a help desk received in six time slots. What is the mean number of calls per slot?

- (A) 3 (B) 6
(C) 5 (D) 4

4. A graph shows 2.5 thousand visitors in a month. This means:
- (A) 2500 visitors (B) 25 visitors
- (C) 250 visitors (D) 25000 visitors

5. If a new value equals the current median, including it in the data will:

(A) Always decrease the median

(B) Make the median equal to the mean

(C) Leave the median unchanged

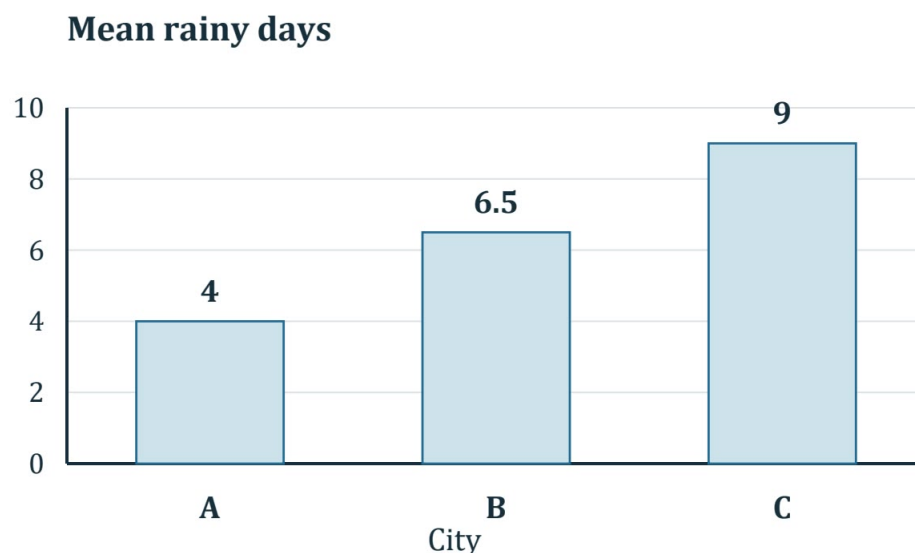
(D) Always increase the median

SECTION B

(4 questions $\times$ 2 marks = 8 marks)

6. The ordered data are 3, 6, 8, 10, 12, 15. A new value p is included, and the new median is 10. Which of 7, 10, 11 and 20 could p be? Explain.

7. The graph shows the mean number of rainy days in June over several years. Read the three city values and explain why one city's value can be 6.5 days even though a single June has a whole-number count of rainy days.



8. Five measurements were taken using a ruler that added 2 cm to every reading. Their reported mean is 31 cm. What is the correct mean? Would the median also need a correction?

9. The total of n data values is S . Use algebra to show what happens to the mean when 7 is added to every value.

SECTION C

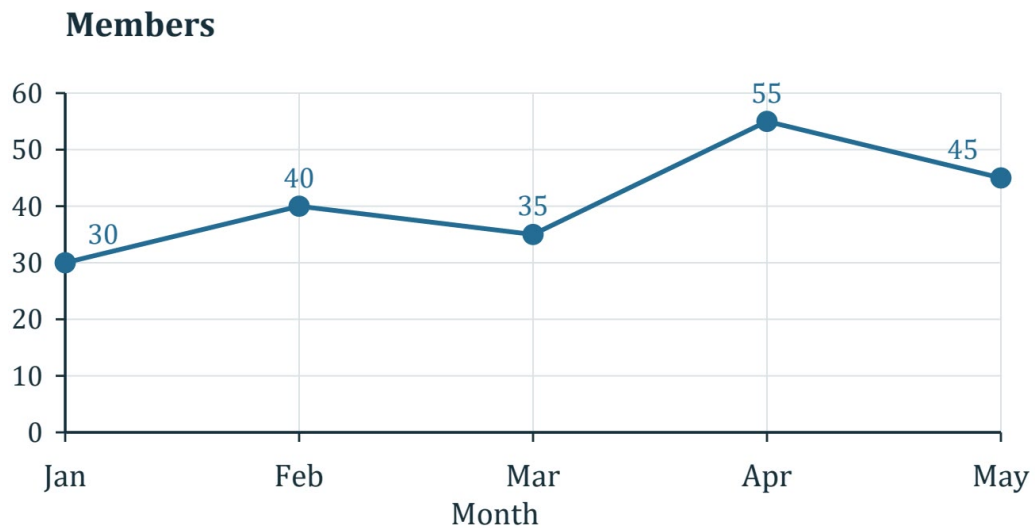
(3 questions $\times$ 3 marks = 9 marks)

10. The table gives scores and their frequencies. Find the total number of scores, their median and their mean.

Score	2	4	6	8
Frequency	2	3	4	1

11. The mean of five values is 12. One value equal to 12 is removed. What are the total and mean of the four values left? Explain why the mean is unchanged.

12. The line graph shows a club's monthly membership. Find the largest rise between consecutive months, the net change from January to May and explain why these are different quantities.



SECTION D

(Application Based Question - 3 marks)

13. A group has mean mass 50 kg. One person loses 3 kg, and three others each gain 1 kg. The group membership does not change.

(i) Find the change in the total mass.

(ii) State the new mean mass.

(iii) Can the new median be determined from this information alone?