

Board – CBSE

Class – 9

Topic – Statistics

Multiple Choice Question Type

- Find the mean of $x + 77$, $x + 7$, $x + 5$, $x + 3$ and $x - 2$?
(A) $x + 8$ (B) $x + 18$ (C) $x - 8$ (D) $x - 18$
- If the mean of n observations $x_1, x_2, x_3, \dots, x_n$ is \bar{x} then what is $\sum_{i=1}^n (x_i - \bar{x})$?
(A) 0 (B) 1 (C) 2 (D) 3
- If each observation of the data is increased by 5, then what happens to its mean?
(A) is increased by 4 (B) is increased by 5
(C) is decreased by 4 (D) is decreased by 5
- In the class intervals $40 - 50$, $50 - 60$, the number 50 is included in which of the following?
(A) $40 - 50$ (B) $30 - 40$ (C) $50 - 60$ (D) $60 - 70$
- If the mean of x , $x + 3$, $x + 5$, $x + 7$ and $x + 10$ is 9 then what is the means of last three observations?
(a) $9\frac{4}{5}$ (b) $10\frac{1}{2}$ (c) $11\frac{1}{3}$ (d) 12
- If x be the mid-point and 1 be the upper class limit of a class in a contains frequency distribution. What is the lower limit of the class?
(A) $x - 1$ (B) $3x + 8$ (C) $2x + 2$ (D) $2x - 1$
- The mean of five numbers is 30. If one number is excluded, their mean becomes 28. What is the excluded number?
(A) 38 (B) 35 (C) 33 (D) 36
- What is the median of the data 78, 56, 22, 34, 45, 54, 39, 68, 54, 84?
(A) 54 (B) 53 (C) 55 (D) 51

Answers

1. (b)	2. (a)	3. (b)	4. (c)
5. (c)	6. (d)	7. (a)	8. (a)

14. Following data gives the marks (out of 50), obtained by 30 students of a class in a test:

21	13	48	1	10	8	12	17	19	17
40	12	46	37	17	27	30	6	12	23
19	39	25	5	33	19	21	12	41	9

15. If the marks of 41 students of a class are given in the following table, then find the median of marks obtained.

Marks obtained	Frequency
30	10
25	2
27	5
40	4
32	12
35	8

16. Following table gives the distribution of two sections of a class according to the marks obtained by them:

Section A		Section B	
Marks	Frequency	Marks	Frequency
0-10	9	0-10	5
10-20	3	10-20	15
20-30	17	20-30	19
30-40	9	30-40	10
40-50	12	40-50	4

17. Five people were asked about the time in a week they spend in doing social work in their community. They said 10, 7, 13, 20, and 15 hours, respectively. Find the mean (or average) Time in a week devoted by them for social work.

18. Find the mean of the marks obtained by 30 students of class IX of a school. The marks are:

10	20	36	92	95	40	50	56	60	70
92	88	80	70	72	70	36	40	36	40

92	40	50	50	56	60	70	60	60	88
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19. Find the mean of the following data.

x_i	11	12	13	14	15	16	17	18
f_i	10	1	3	4	8	10	3	1

20. Find the value of p when the mean of the following data is 21.6.

x_i	6	12	18	24	30	36
f_i	5	4	p	6	4	6

21. The heights (in cm) of 9 students of a class are as follows:

155, 160, 145, 149, 150, 147, 152, 144, 148

Find the median of this data.

22. The points scored by the team of kabaddi in a series of matches are as follows:

17, 2, 7, 27, 15, 5, 14, 8, 10, 24, 48, 10, 8, 7, 18, 28.

Find the median of the points scored by the team.

23. Find the mode of the following marks (out of 10) obtained by 20 students:

4, 6, 5, 9, 3, 2, 7, 7, 6, 5

4, 9, 10, 10, 3, 4, 7, 6, 9, 9

24. In a small unit of a factory 5 employees (a supervisor and four laborers) are working. The laborers draw a salary of Rs. 5000 per month each while the supervisor gets Rs. 15,000 per month. Calculate the mean, median and mode of the salaries of the unit of the factory.

25. The marks obtained by 17 students in a mathematics test (out of 100) are given below:

48, 66, 68, 49, 91, 72, 64, 46, 90, 79, 76, 82, 65, 96, 100, 82, 100

Find the range of the data.

26. Calculate the median of : 152, 155, 160, 144, 145, 148, 147, 149, 150

27. What is the median of 70, 40, 50, 100, 75, 75, 65 and 95?

28. Form a frequency table for the following:

Marks obtained	Number of students
More than 50	0
More than 40	20
More than 30	37
More than 20	44
More than 10	46
More than 0	50

29. If the mean of 8, 5, 2, x, 6, 5 is 6, then find the value of x.

x_i	10	15	20	p	30
f_i	5	10	7	8	2

30. If the mean of the following data is 18.75, find the value of p.

31. The mean of 40 numbers was found to be 35. Later on it was detected that a number 56 was misread as 16. Find the correct mean of the given numbers.

32. A train travels between two stations x and y. While going from x to y, its average speed is 72 km per hour, and while coming back from y to x, its average speed is 63 km per hour. Find the average speed of the train during the whole journey.

33. Find the mode for the following data using the relation : Mode = (3 median – 2 mean)

Item (x)	Frequency (f)
16	1
17	1
18	3
19	4
20	1
21	2