Class 10 Mathematics · Chapter 13: Statistics

Worksheet · 20 marks · about 40 minutes · based on NCERT

Name _____ Class and section _____ Date _____

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1. For a distribution with class size 10, the modal class is 40-50 with frequency 20; the class before it has frequency 12 and the class after it has frequency 8. The mode is [1]

(a) 46 (b) 44
(c) 42 (d) 48

2. For a distribution with class size 20, the step deviation method gives a = 150, $\Sigma f_i = 40$ and $\Sigma f_i u_i = 12$. The mean is [1]

(a) 144 (b) 150.3
(c) 162 (d) 156

3. Using the assumed mean method with a = 45, a student finds $\Sigma f_i = 50$ and $\Sigma f_i d_i = -150$. The mean is [1]

(a) −3 (b) 48
(c) 45 (d) 42

4. Asha finds the mean of a grouped distribution of 50 observations by the direct method and gets 41.6. Ravi uses the step deviation method on the same data with a = 45 and h = 10. His $\Sigma f_i u_i$ must be [1]

(a) −3.4 (b) 17
(c) −17 (d) −34

5. The class marks of a distribution are 1250, 1350, 1450, 1550 and 1650, and the frequencies run into the hundreds. The way of finding the mean that keeps the arithmetic smallest is [1]

(a) the direct method (b) the step deviation method
(c) adding the class marks and dividing by 5 (d) the mode formula

6. The weekly hours spent on homework by 40 students of a school in Pune are given below. Find the mean number of hours by the direct method. [2]

Hours	Number of students
0-4	5
4-8	8
8-12	12
12-16	9
16-20	6

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7. The table gives the number of runs made by 47 batters in a district cricket camp in Ranchi, grouped as below. Find n/2 and the median class. [2]

Runs	Number of batters
0-10	5
10-20	9
20-30	14
30-40	12
40-50	7

8. The mean and median of the monthly rents of shops in a market in Indore are ₹52.4 thousand and ₹50 thousand. Estimate the mode, and say what the relationship you used is for. [2]

9. The marks of 45 students in a unit test at a school in Jaipur are given below. Find the mode. [3]

Marks	Number of students
1-10	5
11-20	9
21-30	15
31-40	11
41-50	5

10. The monthly mobile data (GB) used by the members of a youth club in Bhopal is given below. The mean is 25.75 GB. Find k. [3]

Data used (GB)	Number of members
0-10	5
10-20	8
20-30	k
30-40	9
40-50	6

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11. The time taken by 50 students of a school in Lucknow to reach school is given below. Find the median time. [3]

Time (minutes)	Number of students
0-10	7
10-20	12
20-30	15
30-40	10
40-50	6

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