INDIAN SCHOOL NIZWA - WORKSHEET

MATHEMATICS

13. Statistics

Nam_____ Date:_____ Class: X Sec: ___

1. The Median and mode respectively of a frequency distribution are 26 and 29. Then its mean is

   A) 27.5 B) 24.5 C) 28.4 D) 25.8

2. Mode and mean of a data are 15x and 18x, repectivley. Then the median of the data is:

   A) x B) 11x C) 17x D) 34x

3. If x median + y mean = z mode; is the empirical relationship between mean, median and mode, then the value of $x + y + z$ is

   (A) 6 (B) 3
   (C) 2 (D) 1

4. Following data shows the marks obtained by 100 students in a class test :

Marks obtained	20	29	28	33	42	38	43	25
Number of students	6	28	24	15	2	4	1	20

   The median will be the average of which two observations ?

   (A) 29 and 33 (B) 25 and 28
   (C) 28 and 29 (D) 33 and 38

5. If mean and median of given set of observations are 10 and 11 respectively, then the value of mode is :

   (a) 10.5 (b) 8 (c) 13 (d) 21

6. The cumulative frequency for calculating median is obtained by adding the frequencies of all the :

   (a) classes up to the median class
   (b) classes following the median class
   (c) classes preceding the median class
   (d) all classes

7. Find the mean of the following data:

Class	0-20	20-40	40-60	60-80	80-100	100-120
Frequency	20	35	52	44	38	31

8. **Find the missing frequency 'f'** in the following table, if the mean of the given data is 18. Hence find the mode.

Daily Allowance	*Number of Children*
11 – 13	7
13 – 15	6
15 – 17	9
17 – 19	13
19 – 21	f
21 – 23	5
23 – 25	4

9. Find the Mean and Mode of the following frequency distribution :

Class	*Frequency*
0 – 10	8
10 – 20	7
20 – 30	15
30 – 40	20
40 – 50	12
50 – 60	8
60 – 70	10

10. Medical check-up was carried out for 35 students of a class and their weights were recorded as follows :

Weight (in kg)	38-40	40-42	42-44	44-46	46-48	48-50	50-52
Number of Students	3	2	4	5	14	4	3

Find the difference between the mean weight and the median weight.

11. The following table shows the number of patients of different age group who were discharged from the hospital in a particular month :

Age (in years)	Number of Patients Discharged
5-15	6
15-25	11
25-35	21
35-45	23
45-55	14
55-65	5
Total	**80**

Find the 'mean' and the 'mode' of the above data.

12. Find the mean by direct method and step deviation method.

Class	0-10	10-20	20-30	30-40	40-50
Frequency	7	8	6	9	10

13. Find the median :

Class	0-20	20-40	40-60	60-80	80-100	100-120	120-140
Frequency	7	6	5	9	4	5	4

14. Find the median :

Marks	Less than 10	Less than 20	Less than 30	Less than 40	Less than 50
Number	6	14	24	35	40

15. Find the mode :

Class	0-10	10-20	20-30	30-40	40-50	50-60	60-70
Frequency	12	13	15	16	14	13	14

16. Find the missing frequencies x and y if the median is 20.75. The total frequency is 100.

Class	0-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40
Frequency	7	10	x	13	y	10	14	9

17. Write the frequency distribution table for the following data and find mean, median and mode.

Marks	Below 30	Below 40	Below 50	Below 60	Below 70
No. of students	0	15	18	22	28

18. Convert the following frequency distribution into more than type & less than type and hence find the median.

Marks obtained	10-20	20-30	30-40	40-50	50-60	60-70	70-80
No. of students	5	7	8	9	12	11	6

19. The mean of the following distribution is 48 and the sum of all the frequencies is 50. Find the missing frequencies x and y.

Class	20-30	30-40	40-50	50-60	60-70
Frequency	8	6	x	11	y