

CLASS-X MATHEMATICS
STATISTICS (Module 4/4) WORK SHEET

16. Find the mode of the following distribution:

(i)

<i>Class</i>	0-20	20-40	40-60	60-80	80-100	100-120
<i>Frequency</i>	10	35	52	61	38	29

(ii)

<i>Class</i>	5-15	15-25	25-35	35-45	45-55	55-65
<i>Frequency</i>	6	11	21	23	14	5

17. Find the median of the following data:

(i)

<i>Class</i>	1500-2500	2500-3500	3500-4500	4500-5500	5500-6500	6500-7
<i>Frequency</i>	8	10	15	25	40	20

(ii)

<i>Class</i>	20-30	30-40	40-50	50-60	60-70	70-80	80-90
<i>Frequency</i>	10	8	12	24	6	25	15

18. The following table shows the ages of the patients admitted in a hospital during a year.

<i>Age (in year)</i>	0-10	10-20	20-30	30-40	40-50
<i>No. of patients</i>	22	10	8	15	5

Find the median of the data given above.

19. The following data gives the information on the observed life-times (in hours) of components. Determine the modal life-time of the components.

<i>Life-time (in hrs)</i>	0-50	50-100	100-150	150-200	200-250	250-300
<i>No. of components</i>	2	3	5	6	5	3

IV. Long Answer Type Questions

20. The following frequency distribution gives the monthly consumption of electricity (in units) of a locality. Find the median, mean and mode of the data and compare them.

<i>Monthly consumption (in units)</i>	<i>Number of consumers</i>
65-85	4
85-105	5
105-125	13
125-145	20
145-165	14
165-185	8
185-205	4

Below 35	
Below 40	45
Below 45	78
Below 50	89
Below 55	92
Below 60	98
	100

22. The median of the following data is 61.6 (approx). Find the values of x and y if the total frequency is 50.

Class interval	Frequency
0-20	6
20-40	8
40-60	x
60-80	12
80-100	y
100-120	5
120-140	3

23. 100 surnames were randomly picked up from a local telephone directory and the frequency of the number of letters in the English alphabets in the surnames was obtained as follows:

No. of letters	1-4	4-7	7-10	10-13	16-16
No. of surnames	6	30	40	16	4

Determine the median number of letters in the surnames. Find the mean number of letters in the surnames? Also, find the modal size of the surnames.

24. The following table shows the ages of the patients admitted in a hospital during a year:

Age (in years)	5-15	15-25	25-35	35-45	45-55
No. of patients	6	11	21	23	14

Find the mode and the mean of the data given above. Compare and interpret the two measures of central tendency.

25. Compare the modal age of two groups of students A and B appearing for an entrance examination:

Class interval	Frequency	
	Group A	Group B
16-18	50	54