

9 Class Math Tuition Assignment

Assignment – 14

Assigned To = All 9 Class Students

Chapter = Statistics

MM = 30

Q1. The final marks in mathematics of 30 students are as follows:

53, 61, 48, 60, 78, 68, 55, 100, 67, 90,
75, 88, 77, 37, 84, 58, 60, 48, 62, 56,
44, 58, 52, 64, 98, 59, 70, 39, 50, 60.

(i) Arrange these marks in ascending order, 30 to 39 one group, 40 to 49 second group etc.

Now answer the following:

(ii) What is the highest score?

(iii) What is the lowest score?

(iv) What is the range?

(v) If 40 is the pass mark how many have failed?

(vi) How many have scored 75 or more?

(vii) Which observations between 50 and 60 have not actually appeared?

(viii) How many have scored less than 50?

Q2. The relative humidity (in %) of a certain city for a month of 30 days was as follows:

98.1	98.6	99.2	90.3	86.5	95.3	92.9	96.3	94.2	95.1
89.2	92.3	97.1	93.5	92.7	95.1	97.2	93.3	95.2	97.3
96.2	92.1	84.9	90.2	95.7	98.3	97.3	96.1	92.1	89

(i) Construct a grouped frequency distribution table with classes 84 – 86, 86 – 88, etc.

(ii) Which month or season do you think this data is about?

(iii) What is the range of this data?

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Q3. In a mathematics test given to 15 students, the following marks (out of 100) are recorded.

41, 39, 48, 52, 46, 62, 54, 40, 96, 52, 98, 40, 42, 52, 60

Find the mean, median and mode of this data.

Q4. The following observations have been arranged in ascending order. If the median of the data is 63, find the value of x .

29, 32, 48, 50, x , $x+2$, 72, 78, 84, 95

Q5. Find the mean salary of 60 workers in a factory from the following table.

Salary in ₹	Number of workers
3000	16
4000	12
5000	10
6000	8
7000	6
8000	4
9000	3
10000	1
Total	60

Q6. The distribution of heights (in cm) of 96 children is given below. Construct a histogram and a frequency polygon on the same axes.

Height (in cm)	124 to 128	128 to 132	132 to 136	136 to 140	140 to 144	144 to 148	148 to 152	152 to 156	156 to 160	160 to 164
No. Of Children	5	8	17	24	16	12	6	4	3	1

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Q7. The time taken, in seconds, to solve a problem by each of 25 pupils is as follows:

16, 20, 26, 27, 28, 30, 33, 37, 38, 40, 42, 43, 46, 46, 46, 48, 49, 50, 53, 58, 59, 60, 64, 52, 20

(a) Construct a frequency distribution for these data, using a class interval of 10 seconds.

(b) Draw a histogram to represent the frequency distribution.

Q8. Draw, in the same diagram, a histogram and a frequency polygon to represent the following data which shows the monthly cost of living index of a city in a period of 2 years:

Cost of living index:	440-460	460-480	489-500	500-520	520-540	540-560	560-580	580-600
No. of months:	2	4	3	5	3	2	1	4

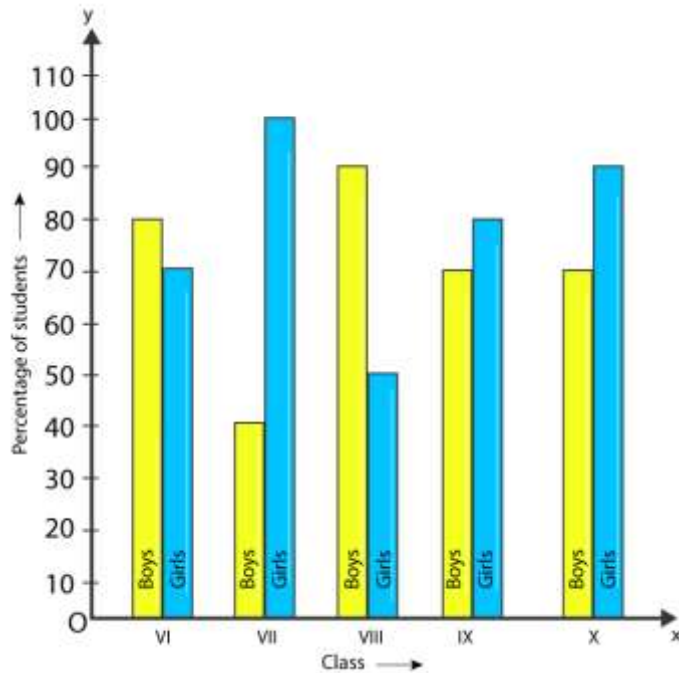
Q9. The following table gives the route length (in thousand kilometres) of the Indian Railways in some of the years:

Year	1960-61	1970-71	1980-81	1990-91	2000-2001
Route length(in thousand km)	56	60	61	74	98

Represent the above data with the help of a bar graph.

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Q10. The following bar graph shows the results of an annual examination in a secondary school. Read the bar graph given below, and choose the correct alternative in each of the following:



(i) The pair of classes in which the results of boys and girls are inversely proportional are:

(a) VI, VIII (b) VI, IX (c) VII, IX (d) VIII, X

(ii) The class having the lowest failure rate of girls is:

(a) VI (b) X (c) IX (d) VIII

(iii) The class having the lowest pass rate of students is:

(a) VI (b) VII (c) VIII (d) IX

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