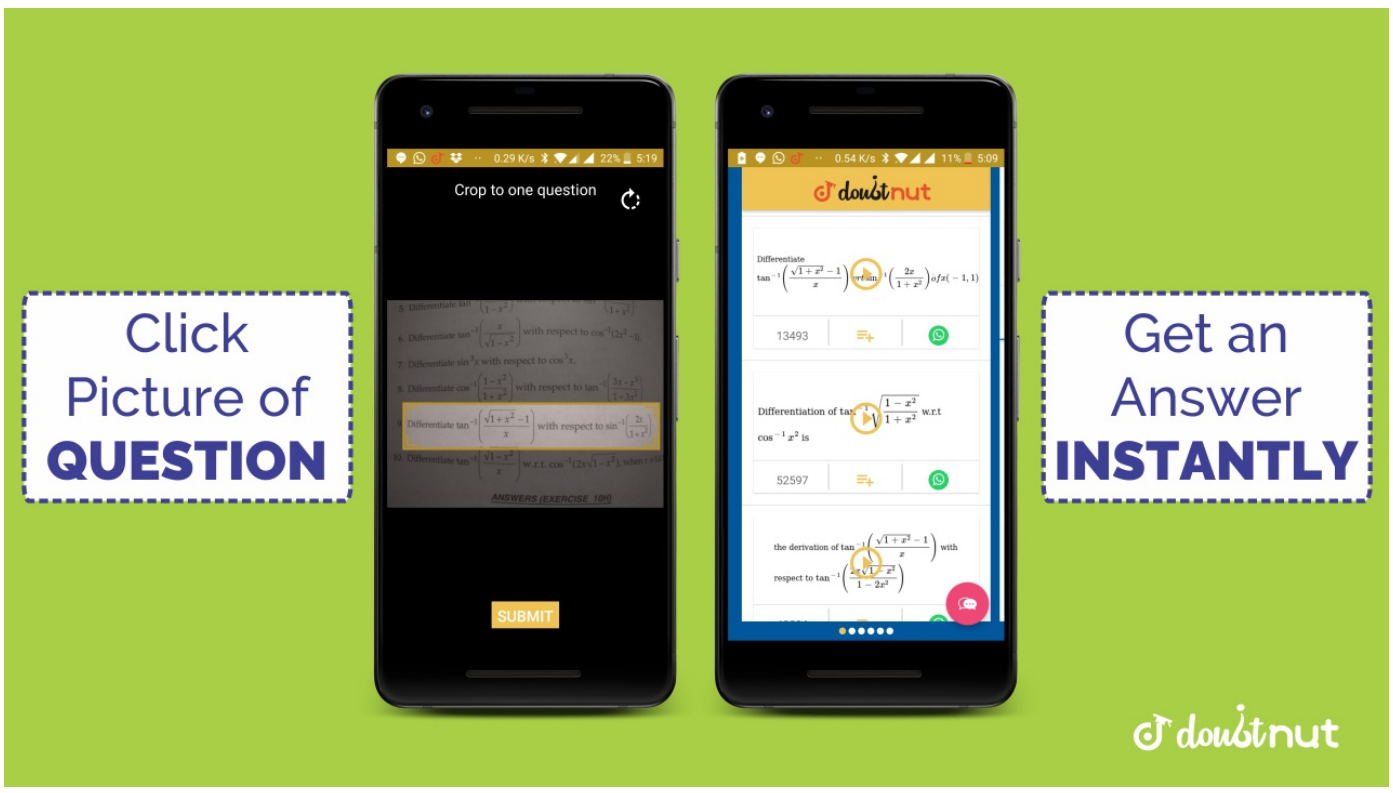
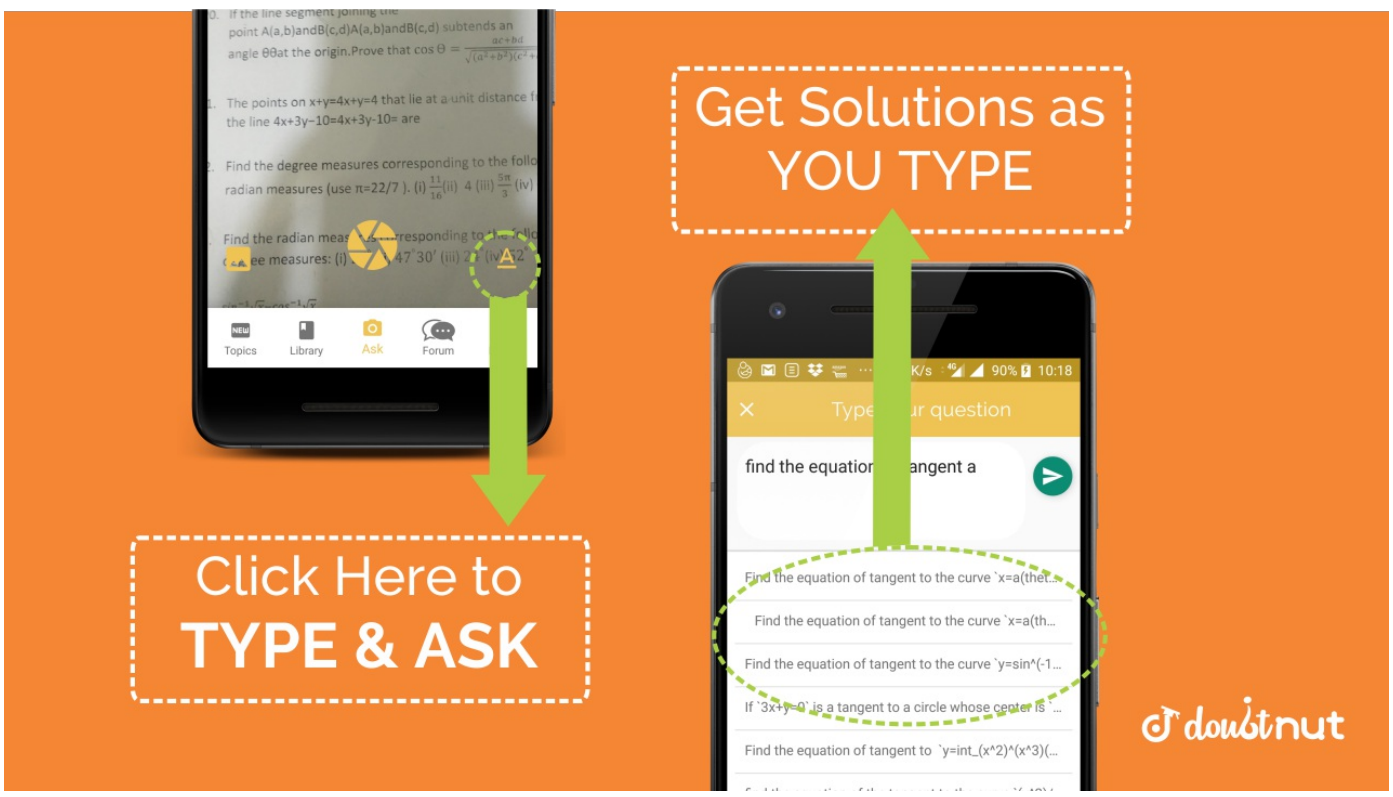
NCERT MATHS SOLUTIONS

Class - 9 || STATISTICS

Ques No.	Question
1	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - EXERCISE 14.1 - Q 1** Give five examples of data that you can collect from your day-to-day life.
2	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - EXERCISE 14.1 - Q 2** Classify the data in Q.1 above as primary or secondary data.
3	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - EXERCISE 14.2 - Q 1** The blood groups of 30 students of Class VIII are recorded as follows: A, B, O, O, AB, O, A, O, B, A, O, B, A, O, O, A, AB, O, A, A, O, O, AB, B, A, O, B, A, B, O. Represent this data in the form of a frequency distribution table. Which is the most common, and which is the rarest, blood group among these students?
4	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - EXERCISE 14.2 - Q 2** The distance (in km) of 40 engineers from their residence to their place of work were found as follows: $5310202511137123119101217181132171627978351215183121429615157612$ Construct a grouped frequency dist
5	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - EXERCISE 14.2 - Q 3** 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?

6	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - EXERCISE 14.2 - Q 4** The heights of 50 students, measured to the nearest centimetres, have been found to be as follows: 161 150 154 165 168 161 154 162 150 151 162 164 171 165 158 154 156 172 160 170 153 159 161 170 162 165 166 168 165 164 154 152 153 156 158 162 160 161 173 166 161 159 162 167 168 159 158 153 154 159 (i) Represent the data given above by a grouped frequency distribution table, taking the class intervals as 160 - 165, 165 - 170, etc. (ii) What can you conclude about their heights from the table? Watch Free Video Solution on Doubtnut
7	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - EXERCISE 14.2 - Q 5** A study was conducted to find out the concentration of sulphur dioxide in the air in parts per million (ppm) of a certain city. The data obtained for 30 days is as follows: 0.03 0.08 0.08 0.09 0.04 0.17 0.16 0.05 0.02 0.06 0.18 0.20 0.11 0.08 0.12 0.13 0.22 0.07 0.08 0.01 0.10 0.06 0.09 0.18 0.11 0.07 0.05 0.07 0.01 0.04 (i) Make a grouped frequency distribution table for this data with class intervals as 0.00 - 0.04, 0.04 - 0.08, and so on. (ii) For how many days, was the concentration of sulphur dioxide more than 0.11 parts per million? Watch Free Video Solution on Doubtnut
8	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - EXERCISE 14.2 - Q 6** Three coins were tossed 30 times simultaneously. Each time the number of heads occurring was noted down as follows: 0 1 2 2 1 2 3 1 3 0 1 3 1 1 2 2 0 1 2 1 3 0 0 1 1 2 3 2 2 0 Prepare a frequency distribution table for the data given above. Watch Free Video Solution on Doubtnut
9	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - EXERCISE 14.2 - Q 7** The value of π upto 50 decimal places is given below: 3.14159265358979323846264338327950288419716939937510 (i) Make a frequency distribution of the digits from 0 to 9 after the decimal point. (ii) What are the most and the least frequently occuring digits? Watch Free Video Solution on Doubtnut

10	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - EXERCISE 14.2 - Q 8** Thirty children were asked about the number of hours they watched TV programmes in the previous week. The results were found as follows: 1 6 2 3 5 12 5 8 4 8 10 3 4 12 2 8 15 1 17 6 3 2 8 5 9 6 8 7 14 12 (i) Make a grouped frequency distribution table for this data, taking class width 5 and one of the class intervals as 5 - 10. (ii) How many children watched television for 15 or more hours a week? Watch Free Video Solution on Doubtnut
11	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - EXERCISE 14.2 - Q 9** A company manufactures car batteries of a particular type. The lives (in years) of 40 such batteries were recorded as follows: 2.6 3.0 3.7 3.2 2.2 4.1 3.5 4.5 3.5 2.3 3.2 3.4 3.8 3.2 4.6 3.7 2.5 4.4 3.4 3.3 2.9 3.0 4.3 2.8 3.5 3.2 3.9 3.2 3.2 3.1 3.7 3.4 4.6 3.8 3.2 2.6 3.5 4.2 2.9 3.6 Construct a grouped frequency distribution table for this data, using class intervals of size 0.5 starting from the interval 2 - 2.5. Watch Free Video Solution on Doubtnut
	Watch Free Video Solution on Doubtnut
	
12	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - EXERCISE 14.3 - Q 1** A survey conducted by an organisation for the cause of illness and death among the women between the ages 15 - 44 (in years) worldwide, found the following figures (in %): Watch Free Video Solution on Doubtnut
13	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - EXERCISE 14.3 - Q 2** The following data on the number of girls (to the nearest ten) per thousand boys in different sections of Indian society is given below. Watch Free Video Solution on Doubtnut
	NCERT - CLASS 9 - CHAPTER 14 STATISTICS - EXERCISE 14.3 - Q 3 Given below are the seats won by different political parties in the polling outcome of a

14	state assembly elections: (i) Draw a bar graph to represent the polling resul Watch Free Video Solution on Doubtnut
15	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - EXERCISE 14.3 - Q 4** The length of 40 leaves of a plant are measured correct to one millimetre, and the obtained data is represented in the following table: (i) Draw a histogram to represent the given data. (ii) Is there any other suitable graphical representation for the same data? (iii) Is it correct to conclude that the maximum number of leaves are 153 mm long? Why? Watch Free Video Solution on Doubtnut
16	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - EXERCISE 14.3 - Q 5** The following table gives the life times of 400 neon lamps: (i) Represent the given information with the help of histogram. (ii) How many lamps have a life time of more than 700 hours? Watch Free Video Solution on Doubtnut
17	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - EXERCISE 14.3 - Q 6** The following table gives the distribution of students of two sections according to the marks obtained by them. Represent the marks of the students of botht the sections on the same graph by two frequency polygon. From the two polygons compare the performance of the two sections. Watch Free Video Solution on Doubtnut
doubtnut पढ़ना हुआ आसान	
18	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - EXERCISE 14.3 - Q 7** The runs scored by two teams A and B on the first 60 balls in a cricket match are given below: `"N u m b e r\ o f\ b a l l s""T e a m\ A""T e a m\ B"1-6 2 5 7-12 1 6 13-18 8 2 19-24 9 10 25-30 4 5 31-36 5 6 37-42 6 3 43-48 10 4 49-54 6 8 55-60 2 10 Watch Free Video Solution on Doubtnut

19	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - EXERCISE 14.3 - Q 8** A random survey of the number of children of various age groups playing in a park was found as following Draw a histogram to represent Watch Free Video Solution on Doubtnut
20	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - EXERCISE 14.3 - Q 9** 100 surnames were randomly picked up from a local telephone directory and a frequency distribution of the number of letters in the English alphabet in the surnames was found as follows: (i) Draw a histogram (ii) write the class interval in which maximum number of surnames lie . Watch Free Video Solution on Doubtnut
21	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - EXERCISE 14.4 - Q 1** The following number of goals were scored by a team in a series of 10 matches: 2, 3, 4, 5, 0, 1, 3, 3, 4, 3 Find the mean, median and mode of these scores Watch Free Video Solution on Doubtnut
22	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - EXERCISE 14.4 - Q 2** 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 Watch Free Video Solution on Doubtnut
23	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - EXERCISE 14.4 - Q 3** 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 Watch Free Video Solution on Doubtnut

24	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - EXERCISE 14.4 - Q 4** Find the mode of 14, 25, 14, 28, 18, 17, 18, 14, 23, 22, 14, 18. Watch Free Video Solution on Doubtnut
25	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - EXERCISE 14.4 - Q 5** Find the mean salary of 60 workers of a factory from the following table Watch Free Video Solution on Doubtnut
26	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - EXERCISE 14.4 - Q 6** Give one example of a situation in which (i) the mean is an appropriate measure of central tendency. (ii) the mean is not an appropriate measure of central tendency but the median is an appropriate measure of central tendency. Watch Free Video Solution on Doubtnut
27	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - SOLVED EXAMPLES - Q 1** Consider the marks obtained by 10 students in a mathematics test as given below: 55 36 95 73 60 42 25 78 75 62 The data in this form is called raw data. By looking at it in this form, can you find the highest and the lowest marks? Watch Free Video Solution on Doubtnut
28	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - SOLVED EXAMPLES - Q 2** Consider the marks obtained (out of 100 marks) by 30 students of Class IX of a school: 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 Recall that the number of students who have obtained a certain number of marks is called the frequency of those marks. For instance, 4 students got 70 marks. So the frequency of 70 marks is 4. To make the data more easily understandable, tabulate the data. Watch Free Video Solution on Doubtnut
29	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - SOLVED EXAMPLES - Q 3** 100 plants each were planted in 100 schools during Van Mahotsava. After one month, the number of plants that survived were recorded as: 95 67 28 32 65 65 69 33 98 96 76 42 32 38 42 40 40 69 95 92 75 83 76 83 85 62 37 65 63 42 89 65 73 81 49 52 64 76 83 92 93 68 52 79 81 83 59 82 75 82 86 90 44 62 31 36 38 42 39 83 87 56 58 23 35 76 83 85 30 68 69 83 86 43 45 39 83 75 66 83 92 75 89 66 91 27 88 89 93 42 53 69 90 55 66 49 52 83 34 36 Tabulate the given data in suitable groups using tally marks. Watch Free Video Solution on Doubtnut

30	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - SOLVED EXAMPLES - Q 4** Let us now consider the following frequency distribution table which gives the weights of 38 students of a class: Watch Free Video Solution on Doubtnut
31	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - SOLVED EXAMPLES - Q 5** In a particular section of Class IX, 40 students were asked about the months of their birth and the following graph was prepared for the data so obtained: Observe the bar graph given above and answer the following questions: (i) How many students were born in the month of November? (ii) In which month were the maximum number of students born? Watch Free Video Solution on Doubtnut
32	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - SOLVED EXAMPLES - Q 6** A family with a monthly income of Rs 20,000 had planned the following expenditures per month under various heads Watch Free Video Solution on Doubtnut
33	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - SOLVED EXAMPLES - Q 7** A teacher wanted to analyse the performance of two sections of students in a mathematics test of 100 marks. Looking at their performances, she found that a few students got under 20 marks and a few got 70 marks or above. So she decided to group t Watch Free Video Solution on Doubtnut

34	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - SOLVED EXAMPLES - Q 8** Consider the marks, out of 100, obtained by 51 students of a class in a test, given in Table 14.9. $Marks \mathrm{N\ u\ m\ b\ e\ r\ \backslash\ o\ f\ \backslash\ S\ t\ u\ d\ e\ n\ t\ s} 0-10 10 10-20 10 20-30 30 30-40 40 40-50 50 50-60 30 60-70 20 70-80 20 80-90 30 90-100 9 Total 51$ Draw a freque Watch Free Video Solution on Doubtnut
35	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - SOLVED EXAMPLES - Q 9** In a city of weekly observations made in a study on the cost of loving index are given in the following ta draw a frequency polygon (without constructing histogram) Watch Free Video Solution on Doubtnut

36	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - SOLVED EXAMPLES - Q 10** 5 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. Watch Free Video Solution on Doubtnut
37	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - SOLVED EXAMPLES - Q 11** Find the mean of the marks obtained by 30 students of Class IX of a school, given in Example 2. 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 Watch Free Video Solution on Doubtnut
38	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - SOLVED EXAMPLES - Q 13** The points scored by a Kabaddi team 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.

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39	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - SOLVED EXAMPLES - Q 14** 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 Watch Free Video Solution on Doubtnut
40	**NCERT - CLASS 9 - CHAPTER 14 STATISTICS - SOLVED EXAMPLES - Q 15** Consider a small unit of a factory where there are 5 employees : a supervisor and four labourers. The labourers draw a salary of Rs 5,000 per month each while the supervisor gets Rs 15,000 per month. Calculate the mean, median and mode of the salaries of this unit of the factory. Watch Free Video Solution on Doubtnut