



# MATHS

## BOOKS - V PUBLICATION

### STATISTICS

#### Questionbank

1. The weight of 6 players in a volley ball team are all different and the average weight is 60 kilograms

i) Prove that the team has at least one player weighing more than 60 kilograms.

ii) Prove that the team has at least one player weighing less than 60 kilograms.



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2. Find two sets of 6 numbers with average 60 , satisfying each of the conditions below:

i) 4 of the numbers are less than 60 and 2 of them greater than 60 .

ii) 4 of the numbers are greater than 60 and 2 of them less than 60 .



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3. The table shows the children in a class, sorted according to the marks they got for a math test.

'(##VPU\_HSS\_MAT\_IX\_C13\_E01\_003\_Q01##)'

Calculate the average marks of the class.



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4. The table below shows the days in a month sorted according to the amount of rainfall in a locality.

'(##VPU\_HSS\_MAT\_IX\_C13\_E01\_004\_Q01##)'

What is the average rainfall per day during this month?



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5. The details of rubber sheets a farmer got during a month are given below.

'(##VPU\_HSS\_MAT\_IX\_C13\_E01\_005\_Q01##)'

i) How many kilograms of rubber did he get a day on average in this month?

ii) The price of rubber is 120 rupees per kilogram. What is his average income per day this month from selling rubber?



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6. Find the average of the scores.

18, 12, 30, 12, 18



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7. If the average of 8, 9, 11,  $2x$  is 10 ,  $x$  - .....



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8. Find the average 12, 18, 17, 13, 20 and 10.



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9. If the mean of 18 scores is 10 , then what is the sum of 18 scores?



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**10.** The mean weight for 10 students is 42. There is no change in the average when two students are added. If one of the newly added students weight is 40 , what is the weight of the second?



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**11.** Find out 10 different numbers between 10 and 30 with average 20 .



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**12.** Find the arithmetic mean of natural numbers from 1 to 100 .



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**13.** Calculate the arithmetic mean of even numbers' and odd numbers from 1 to 100?



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**14.** What Is the difference between arithmetic, mean of first, 100 even numbers and odd numbers? If the number of even numbers and odd. numbers is 200 , what is the arithmetic mean? Can you get any peculiarity?



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**15.** The table shows the students in a class sorted according to their height.

'(##VPU\_HSS\_MAT\_IX\_C13\_E01\_015\_Q01##)'

Calculate the average height.



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**16.** The table shows the students in a class scored according to marks

'(##VPU\_HSS\_MAT\_IX\_C13\_E01\_016\_Q01##)'

Calculate the average mark of the class.



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**17.** Find different sets of 6 different numbers between 10 and 30 with each number given below as mean:

i) 20

ii) 15

iii) 25



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**18.** The table below shows the children in a class, sorted according to their heights.

'(##VPU\_HSS\_MAT\_IX\_C13\_E01\_018\_Q01##)'

What is the mean height of a child in this class?



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**19.** The teachers in a university are sorted according to their ages, as shown below.

'(##VPU\_HSS\_MAT\_IX\_C13\_E01\_019\_Q01##)'

What is the mean age of a teacher in this university?



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**20.** The table below shows children in a class sorted according to their weights.

'(##VPU\_HSS\_MAT\_IX\_C13\_E01\_020\_Q01##)'

The mean weight is calculated as 26 kilograms.

How many children have weights between 23 and 25 kilograms?



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**21.** Height of 100 cadets are given below. Find the mean height.

'(##VPU\_HSS\_MAT\_IX\_C13\_E01\_021\_Q01##)'



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22. Weights (in  $kg$ ) of 60 students are given below. Find the mean weight.

'(##VPU\_HSS\_MAT\_IX\_C13\_E01\_022\_Q01##)'



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23. Table of the height of 200 students who participated in a scout camp is given below.

What is the mean height?

'(##VPU\_HSS\_MAT\_IX\_C13\_E01\_023\_Q01##)'



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**24.** The weights of students in a class are classified in the table below. If the mean weight is 28, find the value of  $k$ :

'(##VPU\_HSS\_MAT\_IX\_C13\_E01\_024\_Q01##)'



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**25.** The table shows the height of students in a class. The mean height is 145. How many students have height in between 150 and 160?

'(##VPU\_HSS\_MAT\_IX\_C13\_E01\_025##)'



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**26.** The energy club members of a school conducted a survey about the consumption of electricity in the houses of a locality.



The details are shown in the following table.

'(##VPU\_HSS\_MAT\_IX\_C13\_E01\_026\_Q01##)'

a) Find the total no. of children.

b) Find the mean consumption of electricity.



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27. The weights of 6 players of a valley ball team are given below. Find the average weight

51, 53, 57, 60, 69, 70



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28. a) If the mean of 7, 9, 11, 13, 15, 17 and  $x$  is 13, which number is  $x$ ?

b) The mean of 9 consecutive odd numbers is 13, write the numbers?



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29. Mean of the numbers 71, 78, 75, 80,  $a$ ,  $b$  is 80.

a) Find  $a + b$ ?

b) If  $a - b = 10$ , then find  $a$  and  $b$ .



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**30.** The table below shows the weights of students in a class. Find the mean weight.

'(##VPU\_HSS\_MAT\_IX\_C13\_E01\_030\_Q01##)'



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**31.** Write all even numbers between 1 and 21. Find the mean of these numbers.

2, 4, 6, 8, 10, 12, 14, 16, 18, 20



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**32.** If the mean of the numbers  $x - 50$ ,  $x - 20$ ,  $x - 10$ ,  $x + 15$ ,  $x + 25$ ,  $x + 40$  is 60. What is the value of  $x$ ?



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**33.** For Okhi relief fund, the girls of 9A donated rupees 4400, and the boys donated rupees 4200. The average amount given by the girls is rupees 200 and that of boys is rupees 150 : Then,

- a) How many students are there in the class?
- b) Find the average amount given by the students of 9A.



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**34.** The table below shows the height of the students in a class.

'(##VPU\_HSS\_MAT\_IX\_C13\_E01\_034##)'

a) What is the mean height?

'(##VPU\_HSS\_MAT\_IX\_C13\_E01\_034\_Q01##)' b) If

a student of height  $150\text{-cm}$  is joined in the class, what will be the new mean height? `



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**35.** The table shows the students in a class sorted according to their marks in an exam.

'(##VPU\_HSS\_MAT\_IX\_C13\_E01\_035\_Q01##)'

a) The average marks is 6. How many students got 8 marks?

b) How many students are there in the class? `



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**36.** The table on the shows 30 workers sorted according to their daily wages. a) What do we take as the mean daily wages of the four workers earning wages between 300 rupees and 400 rupees?

b) According to this, what is the total daily wages of the workers in the class.

c) Making such assumptions, calculate the total wages of workers in other classes also.

d) Calculate the mean daily wages for the entire group: `



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**37.** The mean of five quantities is 40 and two of them are 26 and 24 .

a) Find the sum of the other three quantities.

b) Find three numbers which can be the three quantities.



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**38.** The following table shows the number of patients registered in a govt. Hospital.



'(##VPU\_HSS\_MAT\_IX\_C13\_E01\_038\_Q01##)'

- a) Find the no. of days having patients between 200 and 250 .
- b) Find the mean no. of patients in a day.



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**39.** The members of a club are classified according to their age.

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- a) How many members are there in the club?

b) Find the mid value of each class.

c) Calculate the mean age?



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