



MATHS

BOOKS - CBSE COMPLEMENTARY MATERIAL MATHS (HINGLISH)

STATISTICS

Very Short Answer Types I Questions

1. What is the mean of first 12 prime numbers?



Watch Video Solution

2. The mean of 20 numbers is 18. If 2 is added to each number, what is the new mean?



[Watch Video Solution](#)

3. The mean of 5 observation 3, 5, 6, x and 11 is 7, find the value of x .



[Watch Video Solution](#)

4. What is the median of first 5 natural numbers?



Watch Video Solution

5. What is the value of x , if the median of the following data is 27.5 ?

24, 25, 26, $x + 2$, $x + 3$, 30, 33, 37



Watch Video Solution

6. What is the mode of the observation 5, 7, 8, 5, 7, 6, 9, 5, 10, 6



[Watch Video Solution](#)

7. The arithmetic mean and mode of a data are 24 and 12 respectively, then find the mediana of the data.



[Watch Video Solution](#)

8. Write the class mark of the class $19.5 - 29.5$

.



Watch Video Solution

9. If the class intervals of a frequency distribution are

$1 - 10, 11 - 20, 21 - 30, \dots, 51 - 60$ then

the size of even class is

A. 9

B. 10

C. 11

D. 5.5

Answer: A::B::C::D



Watch Video Solution

10. If the class intervals of a frequency distribution are $1 - 10, 11 - 20, 21 - 30, \dots, 61 - 70$, Then the upper limit of $21 - 30$ is

A. 21

B. 30

C. 30.5

D. 20.5

Answer: C



Watch Video Solution

11. Consider the frequency distribution.

Class	0 – 5	6 – 11	12 – 17	18 – 23	24 – 29
Frequency	13	10	15	8	11

The upper limit of median class is

A. 17

B. 17.5

C. 18

D. 18.5

Answer: C



Watch Video Solution

12. Daily wages of a factory workers are recorded as:

Daily wages in ₹	121 – 126	127 – 132	133 – 138	139 – 144	145 – 150
No. of workers	5	27	20	18	12

The lower limit of Modal class is

A. Rs 127

B. Rs 126

C. Rs 126.5

D. Rs 133

Answer: C



Watch Video Solution

13. For the following distribution.

Class	0 – 5	5 – 10	10 – 15	15 – 20	20 – 25
Frequency	10	15	12	20	9

The sum of Lower limits of the median class and modal class is

- A. 15
- B. 25
- C. 30
- D. 35

Answer: A::B::C::D



Watch Video Solution

Very Short Answer Types I Questions Fill In The Blank

1. Mode = 3 _____ – 2 _____



Watch Video Solution

2. An ogive is used to determine



[Watch Video Solution](#)

3. If the point of intersection of more than and less than ogive is $(20.5, 30.7)$ then the median is _____



[Watch Video Solution](#)

4. The mode of a frequency distribution is obtained graphically from



[Watch Video Solution](#)

5. If the mode is 8 and mean is also 8 then median will be _____



[Watch Video Solution](#)

6. Which measure of central tendency can be determined graphically



[Watch Video Solution](#)

7. If the class marks of a continuous frequency distribution are 22, 30, 38, 46, 54, 62 then the class corresponding to class mark 46 is _____



[Watch Video Solution](#)

8. The cumulative frequency table is useful in determining the



[Watch Video Solution](#)

9. The median of first 10 prime numbers is (a)

11 (b) 12 (c) 13 (d) 14



[Watch Video Solution](#)

10. The assumed mean method to find mean is



[Watch Video Solution](#)

Short Answer Type Question I

1. The mean of 11 observations is 50. If the mean of first six observations is 49 and that of last six observations is 52, then find sixth observation.



[Watch Video Solution](#)

2. Find the mean of following distribution

x	12	16	20	24	28	32
f	5	7	8	5	3	2



[Watch Video Solution](#)

3. Find the median of the following distribution

x	10	12	14	16	18	20
f	3	5	6	4	4	3



[Watch Video Solution](#)

4. Find the mode of the following frequency distribution

Class	0-5	5-10	10-15	15-20	20-25	25-30
Frequency	2	7	18	10	8	5



[Watch Video Solution](#)

5. Draw a 'less than' ogive of the following data

Marks	No. of students
Less than 20	0
Less than 30	4
Less than 40	16
Less than 50	30
Less than 60	46
Less than 70	66
Less than 80	82
Less than 90	92
Less than 100	100



[Watch Video Solution](#)

6. Write the following data into less than cummulative frequency distribution table.

Marks	0-10	10-20	20-30	30-40	40-50
No. of students	7	9	6	8	10



Watch Video Solution

7. Find mode of the following frequency distribution.

Class Interval	25 – 30	30 – 35	35 – 40	40 – 45	45 – 50	50 – 55
Frequency	25	34	50	42	38	14



Watch Video Solution

8. What is the median of the following data?

x	10	20	30	40	50
f	2	3	2	3	1



Watch Video Solution

9. Mean of a frequency distribution (\bar{x}) is 45

. If $\sum f_i = 20$ find $\sum f_i x_i$



[Watch Video Solution](#)

Short Answer Type Question Ii

1. If the mean of the following distribution is 54, find the value of P.

Class	0–20	20–40	40–60	60–80	80–100
Frequency	7	P	10	9	13



[Watch Video Solution](#)

2. Find the median of the following distribution

C.I.	0–10	10–20	20–30	30–40	40–50	50–60
f	5	3	10	6	4	2



[Watch Video Solution](#)

3. The median of following frequency distribution is 24 years. Find the missing

frequency x .

Age (In years)	0–10	10–20	20–30	30–40	40–50
No. of persons	5	25	x	18	7



Watch Video Solution

4. Find the median of the following data

Marks	Below 10	Below 20	Below 30	Below 40	below 50	Below 60
No. of student	0	12	20	28	33	40



Watch Video Solution

5. Find the mode of the following data.

Height (In cm)	Above 30	Above 40	Above 50	Above 60	Above 70	Above 80
No. of plants	34	30	27	19	8	2



[Watch Video Solution](#)

6. The following table represent marks obtained by 100 students in a test.

Marks obtained	30 – 35	35 – 40	40 – 45	45 – 50	50 – 55	55 – 60	60 – 65
No. of students	14	16	28	23	18	8	3

Find mean marks of the students.



[Watch Video Solution](#)

7. The following table represent pocket allowance of children of a colony. The mean

pocket allowance is Rs 18. Find missing frequency.

Daily pocket allowance	11 – 13	13 – 15	15 – 17	17 – 19	19 – 21	21 – 23	23 – 25
No. of children	3	6	9	13	k	5	4



Watch Video Solution

8. Find mode of the following frequency distribution.

Class Interval	0–20	20–40	40–60	60–80	80–100
No. of Students	15	18	21	29	17

The mean of above distribution is 53. Empirical formula to find approximate value of median.



 [Watch Video Solution](#)

Long Answer Type Questions

1. The mean of the following data is 53, Find the value of f_1 and f_2

C.I	0–20	20–40	40–60	60–80	80–100	Total
f	15	f_1	21	f_2	17	100



[Watch Video Solution](#)

2. If the median of the distribution given below is 28.5, find the value of x and y

C.I	0-10	10-20	20-30	30-40	40-50	50-60	Total
f	5	8	x	15	y	5	60



Watch Video Solution

3. The median of the following distribution is 35, find the value of a and b .

C.I	0-10	10-20	20-30	30-40	40-50	50-60	60-70	Total
f	10	20	a	40	b	25	15	170



Watch Video Solution

4. Find the mean, median and mode of the following data.

C.I	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50
f	2	3	6	7	14	12	4	2



[View Text Solution](#)

5. The rainfall recorded in a city for 60 days is given in the following table

Raifall (In cm)	0-10	10-20	20-30	30-40	40-50	50-60
No. of Days	16	10	8	15	5	6

Calculate the median rainfall using a more than type ogive.



[View Text Solution](#)

6. Find the mean of the following distribution by step-deviation method.

Daily Expenditure (in ₹)	100–150	150–200	200–250	250–300	300–350
No. of Households	4	5	12	2	2



Watch Video Solution

7. The distribution given below show the marks of 100 students of a class.

Marks	No. of students
0–5	4
5–10	6
10–15	10
15–20	10
20–25	25
25–30	22
30–35	18
35–40	5

Draw a less than type and a more than type ogive from the given data. Hence obtain the median marks from the graph.



[View Text Solution](#)

8. The annual profit earned by 30 factories in an industrial area is given below

Draw both ogives for the data and hence find the median.

Profit (₹ in lakh)	No. of Factories
More than or equal to 5	30
More than or equal to 10	28
More than or equal to 15	16
More than or equal to 20	14
More than or equal to 25	10
More than or equal to 30	7
More than or equal to 35	3
More than or equal to 40	0



View Text Solution

9. If mean of the given distribution is 65.6 find the missing frequency.

Class Interval	10 – 30	30 – 50	50 – 70	70 – 90	90 – 110	110 – 130	Total
Frequency	5	8	f_1	20	f_2	2	50



[Watch Video Solution](#)

Practice Test

1. An ogive is used to determine

A. Range

B. Mean

C. Mode

D. Median

Answer:



Watch Video Solution

2. Write the modal class for the following frequency distribution.

Classes	1 - 4	5 - 8	9 - 12	13 - 16	17 - 20	21 - 24
frequency	8	9	1	12	8	9



Watch Video Solution

3. Find the mean

Marks	less than 20	less than 40	less than 60	less than 80	less than 100
No. of Students	4	10	28	36	50



Watch Video Solution

4. Find the value of x if the mode is given to be

58 years

Age (in years)	20–30	30–40	40–50	50–60	60–70	70–80
No. of patients	5	13	x	20	18	19



Watch Video Solution

5. The mean of the following frequency distribution is 57.6 and the number of observation is 50. Find the missing frequency

f_1 & f_2

Class Interval	0-20	20-40	40-60	60-80	80-100	100-120
frequency	7	f_1	12	f_2	8	5



Watch Video Solution