MATHS

BOOKS - VGS BRILLIANT MATHS (TELUGU ENGLISH)

STATISTICS

Examples

1. The marks obtained in mathematics by 30 students of Class X of a certain school are given in table below. Find the mean of the marks obtained by the students.

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2. The table below gives the percentage distribution of female in the primary schools of rural areas of various states and union territories (U.T) of India . Find the mean percentage of female teachers using all the three methods.

Percentage of female teachers	Number of States/U.T
$15-25$	6
$25-35$	11
$35-45$	7
$45-55$	4
$55-65$	4
$65-75$	2
$75-85$	1

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3. The distribution below shows the number of wickets taken by bowlers in one-day cricket matches . Find the mean number of wickets by choosing a suitable method. What does the mean signify ?

Number of wickets	Number of bowlers
$25 - 60$	7
$60 - 100$	5
$100 - 150$	16
$150 - 250$	12
$250 - 350$	2
$350 - 450$	3

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4. The wickets taken by a bowler in 10 cricket matches are as follows: 2 , 6 , 4 , 5 , 0 , 2 ,1, 3 ,2 ,3. Find the mode of the date .

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5. A survey conducted on 20 households in a locality by a group of students resulted in the following frequency table for the number of famialy members in a household

.

Family size	Number of families
$1-3$	7
$3-5$	8
$5-7$	2
$7-9$	2
$9-11$	1

Find the mode of this date.

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6. The marks distribution of 30 students in a mathematics examination are given in the adjacent table. Find the mode of this data. Also, compare and interpret the mode and the mean.

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7. If the maximum value of an observation in the data in example 4 is changed to 8, would be the mode of the data be affected? Comment.

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8. A survery regarding the heights (in cm) of 51 girls of Class X of a school was conducted and date was obtained as shown in table . Find their median .

Height (in cm)	Number of girls
Less than140	4
Less than145	11
Less than150	29
Less than155	40
Less than160	46
Less than165	51

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9. The median of the following date is 525 . Find the valuse of x and y , the total frequencey is 100 . Here , C.I

stands for class interval and fr for frequency .

CI	Fr
$0-100$	2
$100-200$	5
$200-300$	x
$300-400$	12
$400-500$	17
$500-600$	20
$600-700$	y
$700-800$	9
$800-900$	7
$900-1000$	4

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Think Discuss

1. The mean value can be calculated from both ungrouped and grouped date . Which one you think is

more accurate ? Why ?

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2. When it is more conveninet to use grouped date for analysis ?

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3. Is the result obtained by all the three methods the same when finding the mean ?

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4. If x_i and f_i are sufficiently samll , then which method is an appropriate choice ?

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5. If x_i and f_i are numerically large numbers , then which methods are appropriate to use ?

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6. It depends upon the demand of the situation whether we are intersted in finding the acerage marks obtained by the students or the marks obtained by most of the

students .

What do we find in the first situation ?

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7. It depends upon the demand of the situation whether we are intersted in finding the acerage marks obtained by the students or the marks obtained by most of the students .

What do we find in the second situation ?

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8. Can mode be calculated for grouped data with unequal class sizes ?

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Do These

1. Find the mode of the following data.

5 ,6, 9 ,10 , 6,12 ,3,6, 11,10 , 4 , 6 , .

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2. Find the mode of the following data.

20 ,3, 7 ,13 , 3 , 6 , 7 ,19 , 15 , 7 , 18 ,3 .

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3. Find the mode of the following data.

2 , 2, 2 , 3, 3, 3, 4, 4, 4 , 5 , 5, 5, 6, 6 , 6,.

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4. Is the mode always at the centre of the data ?

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5. Does the mode change , if another observation is added to the data in Example ? Comment .

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Exercise 14 1

1. A survey was conducted by a group of students as a part of their environment awareness programme , in which they collected the follwing data regarding the number of plants in 20 houses in a locality . Find the

mean number of plants per house .

Number of plants	Number of houses
$0-2$	1
$2-4$	2
$4-6$	1
$6-8$	5
$8-10$	6
$10-12$	2
$12-14$	3

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2. Consider the following distribution of daily wages of 50 workers of a factory .

Daily wages in Rupees	Number of workers
$200-250$	12
$250-300$	14
$300-350$	8
$350-400$	6
$400-500$	10

Find the mean daily wages of the workes of the factory by using an appropriate method .

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3. The following distribution shows the pocket allowance of children of a locality The mean pocket allowance is Rs18 . Find the missing frequency f .

Daily pocket allowance (in Rupees)	Number of children
$11-13$	7
$13-15$	6
$15-17$	9
$17-19$	13
$19-21$	f
$21-23$	5
$23-25$	4

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4. Thirty women were examined in a hospital by a doctor and their of heart beats per minute were recorded and summarised as shown . Find the mean heart beats per minute for these wowen , choosing a suitable method .

Daily Number of heart beats /minute	Number of women
$65 - 68$	2
$68 - 71$	4
$71 - 74$	3
$77 - 80$	7
$80 - 83$	4
$83 - 86$	5

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5. In a ratail market , fruit vendors were selling ornges kept in packing baskets . These baskets contained varing numbers of oranges . The following was the distribution

of oranges .

Number of oranges	Number of baskets
$10-14$	15
$15-19$	110
$20-24$	135
$25-29$	115
$30-34$	25

Find the mean number of oranges kept in each basket .

Which method of finding the mean did you choose ?

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6. The table below shows the daily expenditure on food of 25 households in a locality .

Daily expenditure (Rs)	Number of households
$100-150$	4
$150-200$	5
$200-250$	12
$250-300$	2
$300-350$	2

Find

the mean of expenditure on food of households in a locality .

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7. To find out the concentration of SO_2 in the air (in parts per million , I . e., ppm) , the data was collected for 30 localities in a certain city and is presented below :

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8. A class teacher has the following attendance record of 40 students of a class of for the whole term . Find the

mean number of days a student was present out of 56 days in the term .

Number of days	Number of students
$35-38$	1
$38-41$	3
$41-44$	4
$44-47$	4
$47-50$	7
$50-53$	10
$53-56$	11

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9. The following table gives the literacy rate (in percentage) of 35 cities . Find the mean literacy rate .

Literacy rate in %	Number of cities
$45-55$	3
$55-65$	10
$65-75$	11
$75-85$	8
$85-95$	3

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Exercise 14 2

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

Age (in years)	Number of patients
$5-15$	6
$15-25$	11
$25-35$	21
$35-45$	23
$45-55$	14
$55-65$	5

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

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2. The following data gives the information on the observed lifetimes (in hours) of 225 electrical components :

Lifeline (in hours)	Frequency
$0-20$	10
$20-40$	35
$40-60$	52
$60-80$	61
$80-100$	38
$100-120$	29

Determine the modal lifetiemes of components :

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3. The following data gives the distribution of total monthly household expenditure of 200 families of a

village .. Find the modal monthly expenditure of the families. Also, find the mean monthly expenditure:

Expenditure (Rs)	Number of families
$1000 - 1500$	24
$1500 - 2000$	40
$2000 - 2500$	33
$2500 - 3000$	28
$3000 - 3500$	30
$3500 - 4000$	22
$4000 - 4500$	16
$4500 - 5000$	7

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4. The following distribution gives the state-wise , teacher -student ratio in higher secondary schools of India . Find the mode and mean of this data . Interpret

the two measures .

Number of students	Number of states
$15-20$	3
$20-25$	8
$25-30$	9
$30-35$	10
$35-40$	3
$40-45$	0
$45-50$	0
$50-55$	2

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5. The given distrbution shows the numbers of runs scored by some top batsmen of the world in one -day international cricket matches .

Runs	Number of batsmen
$3000-4000$	4
$4000-5000$	18
$5000-6000$	9
$6000-7000$	7
$7000-8000$	6
$8000-9000$	3
$9000-10000$	1
$10000-11000$	1

Find the mode of the data .

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6. A student noted the number of cars passing through a spot on a road for 100 periods , each of 3 minutes , an summarised this in the table given below .

Number of cars	Frequency
$0-10$	7
$10-20$	14
$20-30$	13
$30-40$	12
$40-50$	20
$50-60$	11
$60-70$	15
$70-80$	8

Find the mode of the data .

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Exercise 14 3

1. The following frequency distribution gives the monthly consumption of electricity of 68 consumers of a locality .

Find the mean of the data

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

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2. If the median of 60 observations , given below is 28.5 ,

find the values of x and y .

Class interval	Frequency
$0-10$	5
$10-20$	x
$20-30$	20
$30-40$	15
$40-50$	y
$50-60$	5

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3. A life insurance agent found the following data about disribution of ages of 100 policy holders . Calulate the median age . [Policies are given only to persons having age 18 years onwards but less than 60 years .]

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4. The lengths of 40 leaves of a plant are measured correct to the nearest millimetre, and the data obtained is represented in the following table : Find the median

length of the leaves. (Hint: The data needs to be converted to continuous classes for

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5. The following table gives the distribution of the life - time of 400 neon lamps.

Lif time (in hours)	Number of lamps
$1500 - 2000$	14
$2000 - 2500$	56
$2500 - 3000$	60
$3000 - 3500$	86
$3500 - 4000$	74
$4000 - 4500$	62
$4500 - 5000$	48

Find the median life -time of a lamp .

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6. 100 surnames were randomly picked up from a local telephone directory and the frequency distribution of the number of leltters in the English alphabet in the surnames was obtained as follows .

Number of letters	Numberse of surnames
$1-4$	6
$4-7$	30
$7-10$	40
$10-13$	16
$13-16$	4
$16-19$	4

Determine the median number of letters in the surnames .

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7. The distribution below gives the weights of 30 students of a class . Find the median weight of the students .

Weight (in kg)	Number of students
$40 - 45$	2
$45 - 50$	3
$50 - 55$	8
$55 - 60$	6
$60 - 65$	6
$65 - 70$	3
$70 - 75$	2

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Exercise 14 4

1. The following distribution gives the daily income of 50 workers of a factory .

Daily (in Rupees)	Number of workers
$250 - 300$	12
$300 - 350$	14
$350 - 400$	8
$400 - 450$	6
$450 - 500$	10

Convert the distribution above to a lessthan type cumulative frequency distribution, and draw its ogive .

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2. During the medical check -up of 35 students of a class , their weights were recorded as follows :

Weight (in kg)	Number of students
Less than 38	0
Less than 40	3
Less than 42	5
Less than 44	9
Less than 46	14
Less than 48	28
Less than 50	32
Less than 52	35

Draw a less than type ogiven for the given data . Hence obtain the median weight from the graph and verify the result by using the formula .

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Exercise

1. The mean value can be calculated from both ungrouped and grouped date . Which one you think is more accurate ? Why ?

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2. When it is more conveninet to use grouped date for analysis ?

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3. The distribution below shows the number of wickets taken by bowlers in one-day cricket matches . Find the mean number of wickets by choosing a suitable method.

What does the mean signify ?

Number of wickets	Number of bowlers
$25 - 60$	7
$60 - 100$	5
$100 - 150$	16
$150 - 250$	12
$250 - 350$	2
$350 - 450$	3

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4. Find the mode of the following data. 5, 6, 9, 10, 6, 12, 3, 6, 11, 10, 4, 6, 7.

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5. Find the mode of the following data.

20 ,3, 7 ,13 , 3 , 6 , 7 ,19 , 15 , 7 , 18 ,3 .

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6. Find the mode of the following data. 2, 2, 2, 3, 3, 3, 3, 4, 4, 4, 5, 5, 5, 6, 6, 6.

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7. Is the mode always at the centre of the data ?

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8. Does the mode change , if another observation is added to the data in Example ? Comment .

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9. If the maximum value of an observation in the data in example 4 is changed to 8, would be the mode of the data be affected? Comment.

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10. It depends upon the demand of the situation whether we are intersted in finding the acerage marks obtained by the students or the marks obtained by most

of the students .

What do we find in the first situation ?

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11. Can mode be calculated for grouped data with unequal class sizes ?

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12. The wickets taken by a bowler in 10 cricket matches are as follows: 2 , 6 , 4 , 5 , 0 , 2 ,1, 3 ,2 ,3. Find the mode of the date .

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13. When an observation in a data is abnormally more than or less than the remaining observation in the data, does it affect the mean or mode or median? Why?

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14. Formula to find mean for a grouped data is

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15. The median of observation, $-2,5,3,-1,4,6,$is $3.5.$Is it correct?Justify your answer.

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16. Write the first 10 prime numbers and find there median.

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17. Prathyusha stated that “the average of first 10 odd numbers is also 10”.Do you agree with her? Justify your answer.

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18. Write the formula for the median of a grouped data.

Explain symbol with their used meaning.

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19. Find the median of first seven composite number.

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20. Find the mode of the data 6,8,3,6,3,7,4,6,7,3,6.

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21. Find the mean of prime numbers which are less than 30.

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22. Write the formula for mode of a grouped data. Explain about the symbols with their usual meanings.

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23. Write the formula for mode of a grouped data. Explain about the symbols with their usual meanings.

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24. Find the median of $\frac{2}{3}, \frac{4}{5}, \frac{1}{2}, \frac{3}{4}, \frac{6}{5}$.

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25. Find the median of first six prime numbers .

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26. Find the missing frequencies f_1 and f_2 if mean of 50 observations given below is 36.4.

Class	0 - 10	10 - 20	20 - 30	30 - 40	40 - 50	50 - 60	60 - 70
Frequency	3	5	f_1	10	f_2	8	5

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27. If the mean of the following frequency distribution is 50 , then find the value of k.

Class	0-20	20-40	40-60	60-80	80-100
Frequency	17	20	32	k	19

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28. Temperature recorded in the first week of May 2016 are $36^\circ, 32^\circ, 34^\circ, 30^\circ, 42^\circ, 40^\circ$ and 38°. Then find the average temperature.

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29. In 2016 IPL season T-20 matches VIRAT KOHLI scored 975 runs in 15 matches. So find his average.

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30. Find the mean of 5,6,9,10,6,12,3,6,11,10.

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31. Find the median of 5, 3, 1, -4, 6, 7, 0.

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32. Find the mode of 5, 6, 9, 6, 12, 3, 6, 11, 6, 7.

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33. 22 students started for a tour with Rs. 3300/-. Two of them dropped with their share Rs. 500/- from the tour. And then remaining completed their tour. So what amount is to be paid in addition by the remaining?

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34. Which central tendency is more useful to express the ability of a cricketer and why?

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35. Find the mean of first ‘n’ natural numbers.


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36. Write the formula for mode of a grouped data. Explain about the symbols with their usual meanings.


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37. Where do we use MEAN in day to day life?


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38. In "more than ogive curve" we consider in drawing.....

A. more than cumulative frequency, lower limits

B. more than cumulative frequency, upper limits

C. lower than cumulative frequency, lower limits

D. lower than cumulative frequency, upper limits

Answer:

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39. Observe the following tables For finding Arithmetic Mean by Direct method, the suggested frequency

distribution table is .....

1)

Class Interval	Frequency	Class mark	
	(f)	(x)	fx

2)

Class Interval	Frequency	Lower limit	
	(f)	(x)	fx

A. Only (1) is true.

B. Only(2) is true.

C. (1) and (2) are ture.

D. None of the above.

Answer:

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40. Median = $l + \left[\frac{\left(\frac{n}{2} - cf\right)}{f}\right] \times h$, where cf = ...

A. Cumulative frequency of the class preceding the median class.

B. Cumulative frequency of the median class.

C. Cumulative frequency of the class succeeding the median class.

D. Sum of the frequencies.

Answer:

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41. If $\bar{x}$, is the mean of x_1, x_2, x_3,.....x_n (n items) then $\sum_{i=1}^{n}\left(Xi_{-\overline{X}}\right)$=.....

A. 0

B. $n\bar{x}$

C. $\frac{x}{n}$

D. $\frac{2\bar{x}}{n}$

Answer:

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42. Mode can be calculated by = $l+\left(\frac{f_1-f_0}{2f_1-f_0-f_2}\right)\times h$ here f_1 represents .....

A. frequency of the modal class

B. frequency of class preceding modal class

C. frequency of class succeeding in the modal class

D. Cumulative frequenty of the class preceding the modal class

Answer:

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43. The X-coordinate of the point of intersection of the two ogives of grouped data is.....

A. median of the data

B. mode of the data

C. mean of the data

D. average of mid values of the data

Answer:

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44. 3, 2, 4, 3, 5, 2, x, 6. If the mode of this data is 3, then x = ...

A. 4

B. 3

C. 2

D. 5

Answer:

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45. For the terms, $x + 1, x + 2, x - 1, x + 3$ and $x - 2$ (x in N), if the median of the data is 12, then x = ...

A. 9

B. 10

C. 11

D. 13

Answer:

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46. Which of the following is not a measure of central tendency ?

A. Mean

B. Median

C. Range

D. Mode

Answer:

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47. The most stable measure of central tendency is

A. Mean

B. Median

C. Mode

D. Deviation

Answer:

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48. If the less than type Ogive and more than type Ogive intersect each other at (42, 18), then the median of the given data is

A. 60

B. 42

C. 18

D. 26

Answer:

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49. The mean of a set observations is $\bar{x}$. If each observation if divided by $\alpha(\neq 0)$ and it is increased by 10, then the mean of the new set is

A. $\frac{\bar{x}}{n}+m$

B. $\bar{x} + \frac{n}{m}$

C. $\bar{x} + \frac{m}{n}$

D. $\frac{\bar{x}}{m} + n$

Answer:

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50. If 14 is deleted from the data 12, 14, 15, 16, 17, 18, 19 and 20, then the median increases by

A. 1

B. 1.5

C. 2

D. 0.5

Answer:

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51. The mean of the first eight multiples of 3 is

A. 8

B. 0.545138888888889

C. 13.5

D. 27

Answer:

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52. The class marks of a class interval is .....

A. upper boundary + lower boundary

B. upper boundary - lower boundary

C. $\frac{(\text{upper boundary} + \text{lower boundary})}{2}$

D. $\frac{(\text{upper boundary - lower boundary})}{2}$

Answer:

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53. If mode of the following data is 7, then the value of 6, 3, 5, 6, 7, 5, 8, 7, 6, 2k + 1, 9, 7, 13 is

A. $\frac{5}{2}$

B. 3

C. 7

D. 5

Answer:

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54. Mode of the following distribution is

Class Interval	0 - 20	20 - 40	40 - 60	60 - 80
Frequency	15	6	18	10

A. 50

B. 56

C. 52

D. 54

Answer:

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55. Which of the following is not a measure of central tendency ?

A. Mean

B. Median

C. Range

D. Mode

Answer:

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56. For a symmetrical distribution, which is correct ?

A. Mean $<$ Mode $<$ Median`

B. $Mean > Mode > Median$

C. `"Mode"="(Mean+Median)"/2

D. Mean = Median = Mode

Answer:

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57. The measure of central tendency which take into account all data terms is

A. Mode

B. Mean

C. Median

D. None of these

Answer:

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58. A data arrange in descending order has 25 observations. Which observation represents the median ?

A. 12th

B. 13th

C. 14th

D. 12^th

Answer:

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59. Construction of cumulative frequency table is useful in determining the

A. Mean

B. Median

C. Mode

D. All the above

Answer:

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60. For a given data with,60 observations, 'the less than ogive' and 'the more than ogive' intersect at (66.5, 30). The median of the data is .....

A. 30

B. 66.5

C. 60

D. 36.5

Answer:

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61. For a given data with 50 observations 'the less than ogive' and the more than ogive intersect at (15.5, 20). The median of the data is .....

A. 10.5

B. 4.5

C. 20

D. 15.5

Answer:

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62. The abscissa of the point of intersection of the less than type and 'more than type' cumulative frequency curves of a grouped data gives its .....

A. Mean

B. Median

C. Mode

D. None

Answer:

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63. Find the median of the following data

Class Interval	10–25	25–40	40–55	55–70	70–85	85–100
Frequency	2	3	7	6	6	6

A. 5

B. 40

C. 80

D. 20

Answer:

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64. For a distribution with odd number (n) of observations, the median is ..... th observation.

A. $\frac{n}{2}$

B. $\frac{n-1}{2}$

C. $\frac{n+1}{2}$

D. $\frac{n}{2}-1$

Answer:

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65. For a distribution with even number (n) of observations, the median is ..... terms.

A. $\frac{1}{2}\left[\frac{n^{th}}{2}+\left(\frac{n}{2}+1\right)^{th}\right]$

B. $\frac{1}{2}\left[\frac{n}{2}-\frac{n-1}{2}\right]$

C. $\frac{n}{2}+\frac{n+1}{2}$

D. none

Answer:

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66. For a continuos grouped frequency distribution the meidan is given by

A. $l-\left(\frac{\frac{n}{2}-f}{c}\right)h$

B. $l-\left(\frac{\frac{n}{2}-cf}{f}\right)\times h$

C. $l^2 + \frac{\frac{n}{2} - cf}{h}$

D. none

Answer:

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67. Class marks of a class $x - y$ is .....

A. $\frac{x}{2} + y$

B. $\frac{x}{2}$

C. xy

D. $\frac{x + y}{2}$

Answer:

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68. Mode of a continuous grouped distribution is .....

A. $l + \frac{f_1 - f_0}{(f_1 - f_0) + (f_1 - f_2)} \times h$

B. $l + \frac{f_1 - f_0}{f_1 - f_0} \times h$

C. $l^2 + \frac{f_1 - f_0}{f_1 - f_0 + f_2} \times h$

D. none

Answer:

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69. If assumed mean is a then mean=.....

A. $a^2 + \Sigma f_i d_i$

B. $a + \Sigma f_i d_i$

C. $a - \Sigma f_i$

D. $a + \frac{\Sigma f_i d_i}{\Sigma f_i}$

Answer:

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70. Mode is the value of variate which occurs ..... number of times.

A. 2

B. maximum

C. minimum

D. none

Answer:

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71. If each observation of a data is increased by 'a' then mean is increases by .....

A. a^2

B. a

C. $\frac{a}{2}$

D. $a + 1$

Answer:

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72. If the mean of $x_1, x_2, \ldots . , x_n$ is $\bar{x}$ then the mean of $\frac{x_1}{a}, \frac{x_2}{a}, \ldots . \frac{x_n}{a}$ is .....

A. $\frac{\bar{x}}{a}$

B. $\frac{x}{a} - 1$

C. $x - a$

D. xa

Answer:

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73. $\frac{(\text{Sum of observations})}{(\text{Number of observations})}$ = ...

A. mode

B. median

C. scale

D. mean

Answer:

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74. Mean of 1, 2, 3,...., n is .....

A. $\frac{n}{2} - 1$

B. $\frac{n}{2}$

C. $\frac{n+1}{2}$

D. none

Answer:

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75. A.M. of 23, 24, 24, 22, 10 is .....

A. 21.6

B. 22.6

C. 12.6

D. 81.6

Answer:

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76. Mode of 1, 2, 3, ... 10, 10 is .....

A. 1

B. 0

C. no mode

D. 10

Answer:

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77. Find the mode of the following data. 5, 6, 9, 10, 6, 12, 3, 6, 11, 10, 4, 6, 7.

A. 8

B. 7

C. 6

D. 5

Answer:

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78. Mode of 20, 3, 7, 13, 3, 4, 6, 7, 19, 15, 7, 18, 3 is .....

A. 3, 7

B. 7, 10

C. 13, 3

D. none

Answer:

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79. Mode of 0, 1, 2, 3, 3, 3, 7 is .....

A. 3

B. 0

C. 1

D. 9

Answer:

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80. Representing the data with the help of pictures is called .....

A. data

B. pictography

C. bar graph

D. none

Answer:

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81. Mid value of the class 10 - 20 is .....

A. 13

B. 12

C. 10

D. 15

Answer:

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82. Histogram consists of .....

A. rectangles

B. circles

C. triangles

D. none

Answer:

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83. Pie diagram consists of .....

A. circles

B. sectors

C. rectangles

D. none

Answer:

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84. Data having two modes is called ..... data.

A. unimodal

B. bimodal

C. trimodal

D. none

Answer:

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85. Mid values are used to calculate .....

A. mean

B. mode

C. median

D. none

Answer:

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86. 1-8, 9-16, 17-24, ...అయిన C.I=.....

A. 12

B. 10

C. 9

D. 8

Answer:

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87. Range of 1, 2, 3, ... 10 is ....

A. 13

B. 12

C. 8

D. 9

Answer:

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88. Mean of 7, 6, 5, 0, 7, 8, 9 is .....

A. 6

B. 8

C. 9

D. none

Answer:

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89. If mode of a distribution is 8 and its mean is 8 then median is .....

A. 6.1

B. 18.2

C. 9

D. 8

Answer:

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90. If the mean of 10, 12, 18, 13, P and 17 is 15, find the value of P.

A. 20

B. 10

C. 30

D. 12

Answer:

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91. The mean of first five prime numbers is .....

A. 8.1

B. 7.3

C. 6.5

D. 5.6

Answer:

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92. The median of the data 5, 3, 10, 7, 2, 9, 11, 2, 6 is .....

A. 6

B. 2

C. 1

D. none

Answer:

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93. Mode of first 'n' natural numbers is .....

A. $n-1$

B. n^2

C. $n+1$

D. no mode

Answer:

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94. .....is effected by extreme values.

A. Mean

B. Mode

C. Median

D. None

Answer:

Watch Video Solution

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95. Mean of - 8, - 4 and 4, 8 is .....

A. -4

B. 8

C. 0

D. 7

Answer:

Watch Video Solution

96. Range of first 5 natural numbers is.....

A. 9

B. 0

C. 5

D. 4

Answer:

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97. Empirical relation among mean, median and mode is .....

A. mode = 3 median - 2 mean

B. mode = 2 median - mean

C. mode = 3 median - mean

D. all the above

Answer:

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98. AM of $1^2, 2^2, 3^2, 4^2 \ldots\ldots\ldots 20^2$=.....

A. 40

B. 50

C. 60

D. none

Answer:

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99. Which of the following is not a measure of central tendency ?

A. mean

B. range

C. median

D. none

Answer:

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100. A data has 13 observations arranged in descending order which observation represents the median of data?

A. 17^{th}

B. 6^{th}

C. 7^{th}

D. none

Answer:

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101. In the formula of mode in the grouped data l represents .....

A. upper boundary

B. lower boundary

C. limit

D. lower limit of the class with highest frequency

Answer:

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102. In an arranged series of an even number 2n terms the median is .....

A. $\frac{1}{2}(n+1)^{th}$

B. $\frac{1}{2}\left(n^{th}+(n+1)^{th}term\right)$

C. $\frac{1}{2}\left(n^{th}\right)$

D. none

Answer:

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103. AM of 1, 2, x, 3 is 0 then x = ...

A. -6

B. 6

C. 7

D. none

Answer:

Watch Video Solution

104. AM of first n odd numbers is ...

A. 2n

B. n^2

C. $n/2$

D. n

Answer:

Watch Video Solution

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105. Mean of $6, \ -4, \frac{2}{3}, \frac{5}{4}, \frac{7}{6}$ is .....

A. $\frac{12}{7}$

B. $\frac{11}{4}$

C. $\frac{11}{20}$

D. none

Answer:

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106. The AM of 10 consecutive numbers starting with n + 1 is .....

A. $x + 5$

B. $x + 5.5$

C. $x - 5$

D. none

Answer:

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107. $\bar{x} = 2p + q, M = p + 2q$ then Z = ...

A. $4q - p$

B. $q - 4p$

C. $4q + p$

D. $p - q$

Answer:

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108. The information collected is called .....

A. median

B. mean

C. mode

D. data

Answer:

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109. In a data mean = 72.5 and median = 73.9 then mode is .....

A. 70.7

B. 69.1

C. 60.2

D. none

Answer:

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110. Mode of any 3 consecutive numbers is .....

A. $x + 1$

B. 4

C. 3

D. no mode

Answer:

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111. .....is based on all observations.

A. Mean

B. Median

C. Mode

D. None

Answer:

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112. The mean of first 5 odd multiples of 5 is .....

A. 25

B. 20

C. 35

D. 15

Answer:

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113. Median = 52.5, mean = 54, use empirical relation and find mode = ...

A. 48.5

B. 60.1

C. 49.5

D. 40.5

Answer:

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114. Mode = 24.5, mean = 29.75 then median [using empirical relation] = ...

A. 28

B. 16

C. 82

D. 20

Answer:

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115. Find the sum of lower limit of median class and upper limit of modal class is .....

Class	10-20	20-30	30-40	40-50	50-60	60-70
Frequency	1	3	5	9	7	3

A. 60

B. 40

C. 50

D. 90

Answer:

Watch Video Solution

116. .....of all bars is same in bar graph.

A. width

B. length

C. circle

D. none

Answer:

Watch Video Solution

117. For a given data with 120 observations, the 'less than ogive' and the 'more than ogive' intersect at (42.5,60) the median of the data is.....

A. 42.5

B. 32.7

C. 90.2

D. none

Answer:

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118. Consider the following frequency distribution. The number of families having income range from ₹16000 to

₹19000 is .....

Monthly income	Number of families
More than or equal to 10000	100
More than or equal to 13000	85
More than or equal to 16000	69
More than or equal to 19000	50
More than or equal to 22000	33
More than or equal to 25000	15

A. 19

B. 10

C. 20

D. none

Answer:

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119. Unimodal data may have ..... modes.

A. 4

B. 6

C. 2

D. 1

Answer:

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120. 1 -10ᘐ C.I. =....

A. 1

B. 10

C. 12

D. 8

Answer:

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121. In calculating mode Δ_1 =.....

A. $f - f_1$

B. $f - f_2$

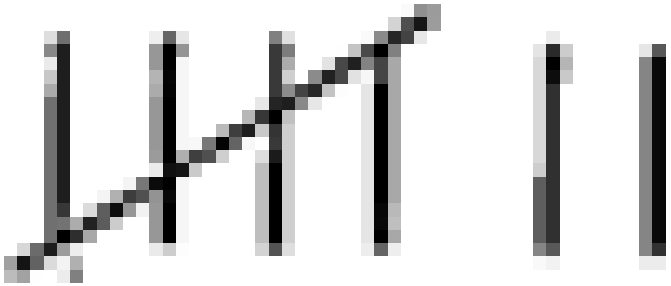
C. $f_1 - f_2$

D. none

Answer:

Watch Video Solution

122. represents .....



A. 10

B. 9

C. 8

D. 7

Answer:

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123. $\sum f_x = 200, n = 20$ అయిన $\bar{x}$ =....

A. 29

B. 16

C. 10

D. 20

Answer:

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124. AM of $a-2, a, a+2$ is .....

A. 3a

B. a

C. $\frac{a}{3}$

D. 1

Answer:

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125. Mean - mode = ...

A. 3 (mean - median)

B. (mean - 2median)

C. 2mean - median

D. none

Answer:

Watch Video Solution

126. 1/3, 7/12, 3/4, 1/2, 5/6,ഠ AM.....

A. 3

B. 12

C. 10

D. none

Answer:

Watch Video Solution

127. 3, 4 ల AM.....

A. 3.1

B. 4

C. 3.5

D. none

Answer:

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128. Mean of $a+1, a+3, a+4$ and $a+8$ is .....

A. $a+7$

B. $a+4$

C. $a-3$

D. none

Answer:

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129. Median of first 8 prime numbers is .....

A. 9

B. 2

C. 3

D. none

Answer:

Watch Video Solution

130. If the mean of the data 2, a + 1, a - 2 is 4 then a =.....

A. 31

B. 3

C. 9

D. 10

Answer:

Watch Video Solution

131. 5, 7, 9, x, ల AM 9 అయిన x=....

A. 19

B. 11

C. 10

D. 15

Answer:

Watch Video Solution

132. .....is known as father of statistics.

A. Cayley

B. Thales

C. Fisher

D. None

Answer:

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133. In a data maximum value = x, minimum value = y then

Range = ...

A. $x - y$

B. $x + y$

C. $x - 1$

D. $x + 1$

Answer:

Watch Video Solution

134. The sum of all deviations taken from AM = ...

A. 1

B. 0

C. -1

D. 2

Answer:

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135. Mode of 2004, 2005, 2006 ..... 2014 is .....

A. 2004

B. 2014

C. 2009

D. no mode

Answer:

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136. Construction of cumulative frequency table is useful in determining the

A. Median

B. Mode

C. Mean

D. None

Answer:

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137. Cumulative frequency curves are called as ..... curves.

A. median

B. scale

C. ogive

D. none

Answer:

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138. 8, 6, 4, x, 3,6, 0 ల సగటు 4 అయిన x విలువ.....

A. 7

B. 6

C. 1

D. 4

Answer:

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139. The extreme values of some data influences high on.....

A. AM

B. Median

C. Mode

D. Range

Answer:

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140. In a data 'n' scores are given and if 'n' is odd, then median is .....

A. $\left(\frac{n+1}{2}\right)^{th}$ event

B. n^{th} event

C. $\left(\frac{n-1}{2}\right)^{th}$ event

D. $(n-1)^{th}$ event

Answer:

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141. 10-25 తరగతి మార్కు.....

A. 10

B. 25

C. 17.5

D. 17

Answer:

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142. Mode of the data 5, 3, 4, -2, 3, 2, 2, 1, p is 3 then the value of 'p' = ...

A. 2

B. 5

C. -2

D. 3

Answer:

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143. Class interval of the class 11-20 is .....

A. 9

B. 10

C. 11

D. 20

Answer:

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144. AM of 1, 2, x, 3 is 0 then x = ...

A. 6

B. -6

C. 3

D. -3

Answer:

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145. If the sum of 15 observations is 420 then their mean = ...

A. 28

B. 26

C. 24

D. 30

Answer:

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146. The mid value of the class 10-19 is .....

A. 12.5

B. 13.5

C. 14.5

D. 24.5

Answer:

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