MATHS

BOOKS - SURA MATHS (TAMIL ENGLISH)

STATISTICS

Exercise 8 1

1. In a week, temperature of a certain place is measured during winter are as follows

$26^\circ C, 24^\circ C, 28^\circ C, 31^\circ C, 30^\circ C, 26^\circ C, 24^\circ C$

. Find the mean temperature of the week.

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2. The mean weight of 4 members of a family is 60 kg Three of them have the weight 56 kg, 68 kg and 72 kg respectively. Find the weight of fourth member.

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3. In a class test in mathematics, 10 students scored 75 marks, 12 students scored 60 marks, 8 students scored 40 marks and 3 students scored 30 marks. Find the mean of their score.

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4. In a research laboratory scientists treated 6 mice with lung cancer using natural medicine . Ten days later, they measured the volume of the tumor in each mouse and given the results

in the table

Mouse marking	1	2	3	4	5	6
Tumor Volume (mm^3)	145	148	142	141	139	140

Find the mean.

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5. If the mean of the following data is 20.2 , then find the value of p.

Marks	10	15	20	25	30
No. of students	6	8	p	10	6

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6. In the class weight of students is measured for the class records . Calculate mean weight of the class students using direct method.

Weight in kg	15-25	25-35	35-45	45-55	55-65	65-75
No. of students	4	11	19	14	0	2

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7. Calculate the mean of the following distribution using Assumed Mean Method.

Class Interval	0-10	10-20	20-30	30-40	40-50
Frequency	5	7	15	28	8

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8. Find the Arithmetic Mean of the following data using Step Deviation Method.

Age	15-19	20-24	25-29	30-34	35-39	40-44
No. of persons	4	20	38	24	10	9

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Exercise 8 2

1. Find the median of the given values : 47, 53, 62, 71, 83, 21, 43, 41.

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2. Find the Median of the given data : 36, 44, 86, 31, 44, 86, 35, 60, 51.

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3. The median of observation 11, 12, 14, 18, x + 2, x + 4, 30, 32, 35, 41 arranged in ascending order is 24. Find the values of x.

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4. A researcher studying the behaviour of mics has recorded the time (in seconds) taken by each mouse to locate its food by considering 13 different mics as 31, 33, 63, 33, 28, 29, 33, 27, 34, 35, 28, 32. Find the median time that mics spent in searching its food.

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5. The following are the marks scored by the students in the Summative Assessment exam

Class	0-10	10-20	20-30	30-40	40-50	50-60
No. of students	2	7	15	10	11	5

Calculate the median.

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6. The mean of five positive integers is twice their median. If four of the integers are 3, 4, 6, 9 and median is 6, then find the fifth integer.

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Exercise 8 3

1. The monthly salary of 10 employees in a factory are given below :

₹5000, ₹7000, ₹5000, ₹7000, ₹8000, ₹7000, ₹7000, ₹8000, ₹7000, ₹5000

Find the mean, median and mode.

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2. Find the mode of the given data : 3.1, 3.2, 3.3, 2.1, 1.3, 3.3, 3.1

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3. For the data 11, 15, 17, x + 1, 19, x-2, 3 if the mean is 14, find the value of x, Also find the mode of the data.

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4. The demand of track suit of different size as obtained by a survey is given below :

Which size is demanded more ?

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5. Find the mode for the following data.

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6. Find the mode of the following distribution :

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Exercise 8 4

1. Let m be the mid point and b be the upper limit of a class in a continuous frequency distribution. The lower limit of the class is

A. $2m - b$

B. $2m + b$

C. $m - b$

D. $m - 2b$

Answer:

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2. The mean of set of seven numbers is 81. If one of the numbers is discarded, the mean of the remaining numbers is 78. The value of the discarded number is

A. 101

B. 100

C. 99

D. 98

Answer:

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3. A particular observation which occurs maximum number or times in a given data is called its

A. Frequency

B. range

C. mode

D. Median

Answer:

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4. For which set of numbers do the mean, median and mode all have the same values ?

A. 2,2,2,4

B. 1,3,3,3,5

C. 1,1,2,5,6

D. 1,1,2,1,5

Answer:

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5. The algebraic sum of the deviations of a set of n values form their mean is

A. 0

B. $n-1$

C. n

D. $n+1$

Answer:

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6. The mean of a, b, c, d and e is 28. If the mean of a, c and e is 24, then mean of b and d is

A. 24

B. 36

C. 26

D. 34

Answer:

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7. If the means of five observation x, x + 2, x + 4, x + 6, x + 8, is 11 then the mean of first three observation is

A. 9

B. 11

C. 13

D. 15

Answer:

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8. The mean of 5, 9, x, 17, and 21 is 13, then find the value of x

A. 9

B. 13

C. 17

D. 21

Answer:

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9. The mean of the square of first 11 natural number is

A. 26

B. 46

C. 48

D. 52

Answer:

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10. The mean of a set of numbers is X. If each number is multiplied by z, the mean is

A. $\overline{X} + z$

B. $\overline{X} - z$

C. `zbarX

D. $\overline{X}$

Answer:

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Additional Questions And Answers Exercise 8 1

1. The following data gives the number of residents in an area based on their age. Find the average age of the residents.

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2. Find the mean for the following distribution using step Deviation Method.

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Additional Questions And Answers Exercise 8 2

1. For the following up grouped data 8, 15, 14, 19, 11, 16, 10, 8, 17, 20. Find the median.

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2. The following table gives the weekly expenditure of 200 families. Find the median of the weekly expenditure.

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3. The median of the following data is 24. Find the value of x.

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4. The following are the scores obtained by 11 players in a cricket match 7,21,45,12,56,35,25,0,58,66,29. Find the median score.

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Additional Questions And Answers Exercise 8 3

1. Find the mode of the given data : 65, 65, 71, 71, 72, 75, 82, 72, 72.

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2. Find the mode for the following data.

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3. In a distribution, the mean the mode are 46 and 10 respectively. Calculate the median.

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Additional Questions And Answers Exercise 8 4

1. The mean of first 10 natural numbers.

A. 25

B. 55

C. 5.5

D. 2.5

Answer:

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Additional Questions And Answers Exercise 8 5

1. The mean of a distribution is 23, the median is 24 and the mode is 25.5. It is most likely that this distribution is :

A. Positively skewed

B. Symmetrical

C. Asymptotic

D. Negatively skewed

Answer:

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Additional Questions And Answers Exercise 8 6

1. The middle value of an ordered array of numbers is

A. Mode

B. Mean

C. Median

D. Mid point

Answer:

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Additional Questions And Answers Exercise 8 7

1. The weights of students in a school is a :

A. Discrete variable

B. Continuous variable

C. Qualitative variable

D. None of these

Answer:

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Additional Questions And Answers Exercise 8 8

1. The first hand and unorganized form date is called

A. Secondary data

B. Organised data

C. Primary data

D. None of these

Answer:

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Section A

1. If the means of five observation x, x + 2, x + 4, x + 6, x + 8, is 11 then the mean of first three observation is

A. 9

B. 11

C. 13

D. 15

Answer: A

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2. A particular observation which occurs maximum number or times in a given data is called its

A. Frequency

B. range

C. mode

D. Median

Answer: C

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3. The mean of the square of first 11 natural number is

A. 26

B. 46

C. 48

D. 52

Answer: B

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4. The mean of 5, 9, x, 17, and 21 is 13, then find the value of x

A. 9

B. 13

C. 17

D. 21

Answer: B

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5. The mean of a set of numbers is X, If each number is multiplied by z, the mean is

A. $\overline{X} + z$

B. $\overline{X} - z$

C. $z\overline{X}$

D. $\overline{X}$

Answer: C

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Section B

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Section C

1. Calculate the mean of the following distribution using Assumed Mean Method.

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Frequency	5	7	15	28	8

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2. Find the mode of the following distribution :

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