



MATHS

BOOKS - RS AGGARWAL MATHS (HINGLISH)

COLLECTION AND ORGANISATION OF DATA (MEAN, MEDIAN AND MODE)

Example

1. Given below is the data showing the number of children in 20 families of a Locality

3, 1, 3, 2, 2, 2, 0, 3, 4, 2, 1, 3, 2, 4, 1, 2, 2, 3, 1, 3

Arrange the data in ascending order and then prepare a

frequency table. Arranging the data in ascending order, we get

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2. Given below are the heights (in cm) of 16 girls in a class:

154, 150, 152, 154, 154, 150, 148, 152, 152, 152, 154, 150, 152,
154, 152, 152

Arrange the data in ascending order and prepare the frequency table

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3. Find the mean of the numbers

7.6, 6.8, 8.5, 9.4, 5.9, 6.4, 9.1 and 4.7

A. 6.7

B. 4.9

C. 5.6

D. 7.3

Answer: D



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4. The pocket-expenses of Rahul during a week are Rs 15.40, Rs18.00, Rs16.50, Rs 14.75, Rs12.60 and Rs17.25 Find his mean pocket-expenses per day

A. 11.78

B. 13.42

C. 15.75

D. 12.33

Answer: C



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5. The heights of 7 players in a group are

175 cm, 158 cm, 180 cm, 164 cm, 182 cm, 160 cm and 171 cm.

Find their mean height

A. 165 cm

B. 170 cm

C. 133 cm

D. 156 cm

Answer: B

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6. The following table shows the weights of 12 workers in a factor

:Find the mean weight

<i>Weight (in kg)</i>	60	63	66	69	72
<i>No. of workers</i>	4	3	2	2	1

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7. The following table shows the number of misprints in various pages of a book containing 300 pages

Find the mean misprints per page

No. of misprints (per page)	0	1	2	3	4	5
No. of pages	154	95	36	7	6	2



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8. If the mean of the following frequency distribution is 8, find the value of p

Variable (x_i)	3	5	7	9	11	13
Frequency (f_i)	6	8	15	p	8	4



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1. The runs scored by 11 members of a cricket team are
25, 39, 53, 18, 65, 72, 0, 46, 31, 08, 34

Find the median score

A. 40

B. 31

C. 34

D. 36

Answer: C



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2. The weights of 10 students (in kg) are

40, 52, 34, 47, 31, 35, 48, 41, 44, 38

Find the median weight.

A. 45.5 kg

B. 40 kg

C. 40.5 kg

D. 45 kg

Answer: C



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3. Find the median for the following frequency distribution

Marks obtained (x_i)	17	20	22	15	30	25
Number of students (f_i)	5	9	4	3	10	6

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4. Find the median for the following frequency distribution

x_i	3	6	10	12	7	15
f_i	3	4	2	8	13	10

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5. Given below is the number of pairs of shoes of different sizes sold in a day by the owner of a shop

What is the modal shoe-size

Size of shoe	1	2	3	4	5	6	7	8	9
Number of pairs sold	1	2	2	3	4	5	3	7	2



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6. What is the modal shoe-size? Since the sale of size 8 is maximum, so the modal shoe-size is 8. The marks obtained by 11 students of a class in a test are given below

23, 2, 15, 38, 21, 19, 23, 23, 26, 34, 23.

Find the modal marks



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7. Calculate the mean and median for the following data

Using empirical formula, calculate its mode

<i>Marks</i>	10	11	12	13	14	16	19	20
<i>Number of students</i>	3	5	4	5	2	3	2	1



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8. Find the mean and median of the following data

Using empirical formula, calculate its mode

<i>Weight (in kg)</i>	42	47	52	57	62	67	72
<i>Number of persons</i>	3	8	6	8	11	5	9



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1. Define the terms:

(i) Data

(ii) Raw data

(iii) Array

(iv) Tabulation of data

(v) Observations

(vi)

Frequency of an observation

(vii) Statistics



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2. A die was thrown 20 times and the following outcomes were recorded

Arrange the above data in ascending order and prepare the frequency table

5,2,1,3,4,4,5,6,2,2,4,5,5,6,2,2,4,5,5,1



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3. The daily wages (in) of 15 workers in a factory are given below

Arrange the above data in ascending order and prepare the frequency table

400,360,300,300,260,360,360,400,300,260,360,360,400,300,360



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4. Write the data given below in ascending order and prepare the frequency table

7,8,7,10,6,8,9,7,10,5,7,6,8,5,6,7,8,9,7,6,7,8



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5. Fill in the blanks

(i) Data means information in the form of _____ figures



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6. Fill in the blanks

Q(ii) Data obtained in the _____ form is called raw data



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7. Fill in the blanks

Q(iii) Arranging the numerical figures in ascending or descending order is called an _____



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8. Fill in the blanks

Q(iv) The number of times a particular observation occurs is called its _____



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9. Fill in the blanks

Q(v) Arranging the data in the form of a table is called _____ of data.



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10. Find the mean of first five natural numbers

A. 4

B. 3

C. 2

D. 5

Answer: B

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11. Find the mean of first six odd natural numbers

A. 3

B. 4

C. 6

D. 8

Answer: C

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12. Find the mean of first seven even natural numbers

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13. Find the mean of first five prime numbers

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14. Find the mean of first six multiples of 5

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15. The following table shows the weights (in kg) of 15 workers in a factory

Calculate the mean weight

Weight (in kg)	60	63	66	72	75
Number of workers	4	5	3	1	2



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16. The daily wages (in rupees) of 60 workers in a factory are given below

Find the mean daily wages

Daily wages (in ₹)	280	300	320	360	380
Number of workers	14	16	15	7	8



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17. The heights (in cm) of 90 plants in a garden are given below

Find the mean height

Height (in cm)	58	60	62	64	66	74
Number of plants	20	25	15	8	12	10



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18. The ages (in years) of 50 players of a school are given below

Find the mean height

Age (in years)	14	15	16	17	18
Number of players	15	14	10	8	3



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19. The heights (in cm) of 40 boys were measured and recorded as under

Find the mean height

Height (in cm)	165	170	175	180
Number of boys	9	8	11	12



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Exercise 21 B

1. Find the median of

Q(1) 3, 11, 7, 2, 5, 9, 9, 2, 10

(ii) 9, 25, 18, 15, 6, 16, 8, 22, 21

(iii) 21, 15, 6, 25, 18, 13, 20, 9, 16, 8, 22



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2. Find the median of

Q(i) 10, 32, 17, 19, 21, 22, 9, 35

(ii) 55, 60, 35, 51, 29, 63, 72, 91, 85, 82



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3. Find the median of first 15 odd numbers

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4. Find the median of first 10 even numbers

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5. Find the median of first 15 odd numbers. 4. Find the median of first 10 even numbers. 5. Find the median of first 50 whole numbers

Hint. First 50 whole numbers are 0, 1, 2, 3, ____, 49

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6. The marks of 15 students (out of 50) in an examination are

20, 22, 26, 31, 40, 19, 17, 19, 25, 29, 23, 17, 24, 21, 35

Find the median marks



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7. The ages (in years) of 10 teachers in a school are

34, 37, 53, 46, 52, 43, 31, 36, 40, 50

Find the median age



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8. Find the median weight for the following data

Weight (in kg)	45	46	48	50	52	54	55
Number of boys	8	5	6	9	7	4	2



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9. Calculate the median for the following data

Marks	17	20	22	15	30	25
Number of students	5	9	4	3	10	6



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10. The heights (in cm) of 50 students of a class are given below

Find the median height

Height (in cm)	156	154	155	151	157	152	153
Number of students	8	4	10	6	7	3	12



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Exercise 21 C

1. Find the mode of the data

Q(i) 10, 8, 4, 7, 8, 11, 15, 8, 6, 8

(ii) 27, 23, 39, 18, 27, 21, 27, 27, 40, 36, 27



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2. The ages (in years) of 11 cricket players are given below
28,34,32,41,36,32,32,38,32,40,31

Find the mode of the age



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3. Daily wages of 45 workers in a factory are given below

Find the median and the mean

Using empirical formula, calculate its mode

Daily wages (in ₹)	300	375	450	525	600
Number of workers	6	8	9	12	10



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4. the following table shows the marks obtained by 41 students of a class Find the median and mean marks Using empirical formula, calculate its mode.

Marks obtained	15	17	20	22	25	30
Number of students	2	5	10	12	8	4



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5. The following table shows the weight of 12 players Find the median and mean weights

Using empirical formula, calculate its mode

Weight (in kg)	48	50	52	54	58
Number of players	4	3	2	2	1



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