MATHS

BOOKS - RD SHARMA MATHS (HINGLISH)

DATA HANDLING 2

All Questions

1. A batsman scored the following number of runs in six innings: 36, 35, 50, 46, 60, 55 Calculate the mean runs scored by him in an inning.

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2. If the heights of 5 persons are 144 cm, 152 cm, 151 cm, 158 cm and 155 cm respectively. Find the mean height.

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3. Find the arithmetic mean of first 6 natural numbers.

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4. Find the mean of the first five whole numbers

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5. The ages in years of 10 teachers of a school are: 32, 41, 28, 54, 35, 26, 23, 33, 38, 40 (i) What is the age of the oldest teacher and that of the youngest teacher? (ii) What is the range of the ages of the teachers? (iii) What is the mean age of these

6. The heights of 10 girls were measured in cm and the results are as follows: 135, 150, 139, 128, 151, 132, 146, 149, 143, 141. (i) What is the height of the tallest girl? (ii) What is the height of the shortest girl? (iii) What is the range of the da

7. If the mean of is , find the value of

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8. If the mean of $647p$ and 10 is 8 Find the value of p.

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9. The mean of 10 numbers is 20. If 5 is subtracted from every number, what will be the new mean?

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10. The mean of 16 numbers is 8. If 2 is added to every number, what will be the new mean?

11. If the mean of five observation $x, x+2, x+4x+6, x+8$ is 11, find the mean of first three observations.

12. The mean of 40 observation was 160. It was detected on re-checking that the value 165 wrongly copied as 125 for computation of mean. Find correct mean.

13. Following table shows the points of each player scored in four games

Player	Game 1	Game 2	Game 3	Game 4
A	14	16	10	10
B	0	8	6	4
C	8	11	Did not play	13

Now answer the following questions

Who is the best performer ?

14. Ashish studies for 4 hours, 5 hours and 3 hours respectively on three consecutive days. How many hours does he study daily on an average?

15. A cricketer scores the following runs in eight innings: 58, 76, 40, 35, 46, 45, 0, 100. Find the mean score.

16. The marks (out of 100) obtained by a group of students in a science test are 85, 76, 90, 85, 39, 48, 56, 95, 81 and 75. Find the: (i) Highest and the lowest marks obtained by the students. (ii) Range of the marks obtained. (iii) Mean marks obtain

17. The enrolment in a school during six consecutive years was as follows: 1555, 1670, 1750, 2013, 2540, 2820 Find the mean enrolment of the school for this period

18. The rainfall (in mm) in a city on 7 days of a certain week was recorded as follows: (i) Find the range of the rainfall in the above data. (ii) Find the mean rainfall for the week. (iii) On how many days was the rainfall less than the mean rainfal

19. If the heights of 5 persons are 140 cm, 150 cm, 152 cm, 158 cm and 161 cm respectively, find the mean height.

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20. Find the mean of 994, 996, 998, 1002 and 1000

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21. Find the mean of first five natural numbers.

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22. Find the mean of all factors of 10.

23. Find the mean of first 10 even natural numbers.

24. Find the mean of $x,\ x+2,\ x+4,\ x+6,\ x+8$

25. Find the mean of first five multiples of 3.

26. Following are the weights (in kg) of 10 new born babies in a hospital on a particular day: 3.4, 3.6, 4.2, 4.5, 3.9, 4.1, 3.8, 4.5, 4.4, 3.6. Find the mean .

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27. The percentage of marks obtained by students of a class in mathematics are: 64, 36, 47, 23, 0, 19, 81, 93, 72, 35, 3, 1. Find their mean.

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28. The number of children in 10 families of a locality are 2,4,3,4,2,0,3,5,1,6. Find the mean number of children per

family.

29. The mean of marks scored by 100 students was found to be 40. Later on it was discovered that a score of 53 was misread as 83. Find the correct mean.

30. The mean of five numbers is 27. If one number is excluded, their mean is 25.Find the excluded number.

31. The mean weight per student in a group of 7 students is 55 kg. The individual weights of 6 of them (in kg) are 52, 54, 53, 56 and 54. Find the weight of the seventh student.

32. The mean weight of 8 numbers is 15. If each number is multiplied by 2, what will be the new mean?

33. The mean of 5 numbers is 18. If one number is excluded, their mean is 16. Find the excluded number.

34. The mean of 200 items was 50. Later on, it was discovered that the two items were misread as 92 and 8 instead of 192 and 88. Find the correct mean.

35. The mean of five numbers is 27. If one number is excluded, their mean is 25.Find the excluded number.

36. The mean of 75 numbers is 35. If each number is multiplied by 4, find the new mean.

37. Organise the following marks in a class assessment, in a tabular form.](i) Which number is the highest? (ii) Which number is the lowest? (iii) What is the range of the data? (iv) Find the arithmetic mean.

38. Given below are the ages of 25 students of class VIII in a school. Prepare a discrete frequency distribution. 15,16,16,14,17,17,16,15,15,16,17,15 16,16,14,16,15,14,15,16,15,14,15

39. Find the mean of the following distribution:

4	6	9	10	15	5	10
10	7	8				

40. Following table shows the weights of 12 students: Find the mean weight.

41. Find the mean of the following distribution:

10	30	50	70	89
7	8	10	15	10

42. If the mean of the following distribution is 6, find the

value of   2   4   6   10

3   2   3   1   2

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43. Find the value of   if the mean of the following

distribution is 7.5.   3   5   7   9

11   13   6   8   15   8   4

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44. 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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45. Following figures relate the weekly wages (in Rs.) of 15 workers in a factory:

300,250,200,250,200,150,350,200,250,200,150,300,150,200,250

Prepare a frequency table. What is the range in wages (in Rs.) How many workers are getting Rs. 350? How many workers are getting the minimum wages?

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46. 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

47. The ages (in years) of 50 students of a class in a school are given below: Age (in years):   14   15   16   17

18 Numbers of students: 15   14   10   8

3 Find the mean age.

48. Calculate the mean for the following distribution:

5	6	7	8	9	4	8
14	11	3				

49. Find the mean of the following data:

					19	21
23	25	27	29	31	13	15	16
18	16	15	13				

50. The mean of the following data is 20.6. Find the value of

10	15	p	25	35	3	10

| 25 | 7 | 5 |

51. If the mean of the following data is 15, find

52. Find the value of p for the following distribution whose

mean is 16.6		8	12	15		20	25
30	12	16	20	24	16	8	4

53. Find the missing value of for the following distribution whose mean is 12.58

x	5	8	10	12		20	25
f	2	5	8	22	7	4	2

54. Find the missing frequency for the following distribution whose mean is 7.68

x	3	5	7	9	11	13
f	6	8	15		8	4

55. Find the value of p, if the mean of the following distribution is 20

x	15	17	19	23
2	3	4	5	6

56. Find the median of the data : 25 34 31 23 22 26 35 28 20 32

57. The runs scored in a cricket match by 11 players is as follows: 6, 15, 120, 50, 100, 80, 10, 15, 8, 10, 15 Find the mean, mode and median of this data. Are the three same?

58. Find the median of the following data:

25,34,31,23,22,26,35,28,20,32

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59. Find the median of the following data 83, 37, 70, 29, 45, 63, 41, 70, 34, 54

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60. The following observations have been arranged in ascending order. If the median of the data is 63, find the value of x. 29, 32, 48, 50, x, x + 2, 72, 78, 84, 95

61. Find the median of the following observations: 46, 64, 87, 41, 58, 77, 35, 90, 55, 92, 33. If 92 is replaced by 99 and 41 by 43 in the above data, find the new median?

62. Find the median of the following data: 41, 43, 127, 99, 61, 92, 71, 58, 57 if 58 is replaced by 85, what will be the new median.

63. Find the median of the following data: 25, 34, 31, 23, 22, 26, 35, 28, 20, 32

64. Find the median of the following data 12, 17, 3, 14, 5, 8, 7, 15

65. Find the median of the following data 133, 73, 89, 108, 94, 104, 94, 85, 100, 120

66. Find the median of the following data 15, 6, 16, 8, 22, 21, 9, 18, 25

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67. Find the median of the following data.

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68. Find the median of the following data 83, 37, 70, 29, 45, 63, 41, 70, 34, 54

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69. Find the median of the following data:

31, 38, 27, 28, 36, 25, 35, 40

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70. Numbers $50, \ 42, \ 35, \ 2x + 10, \ 2x - 8, \ 12, \ 11, \ 8$ are written in descending order and their median is 25, find x

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71. Find the median of the following observations: 46, 64, 87, 41, 58, 77, 35, 90, 55, 92, 33. If 92 is replaced by 99 and 41 by 43 in the above data, find the new median?

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72. Find the median of the following data: 41, 43, 127, 99, 61, 92, 71, 58, 57 if 58 is replaced by 85, what will be the new median.

73. The weights (in kg) of 15 students are: 31,35,27,29,32,43,37,41,34,28,36,44,45,42,30. Find the median. If the weight 44kg is replaced by 46 kg and 27kg by 25 kg, find the new median.

74. The following observations have been arranged in ascending order. If the median of the data is 63, find the value of x. 29, 32, 48, 50, x, x + 2, 72, 78, 84, 95

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75. Find the mode of the following data 10, 5, 20, 25, 10, 13, 17, 13, 22, 13

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76. Following are the margins of victory in the football matches of a league. 1, 3, 2, 5, 1, 4, 6, 2, 5, 2, 2, 2, 4, 1, 2, 3, 1, 1, 2, 3, 2, 6, 4, 3, 2, 1, 1, 4, 2, 1, 5, 3, 3, 2, 3, 2, 4, 2, 1, 2

77. Find the mode of the data:1, 1, 2, 4, 3, 2, 1, 2, 2, 4

78. The weights (in kg.) of 15 students of a class are: 38, 42, 35, 37, 45, 50, 32, 43, 43, 40, 36, 38, 43, 38, 47 (i) Find the mode and median of this data. (ii) Is there more than one mode?

79. Find the mode and median of the following data:

12, 14, 12, 16, 15, 13, 14, 18, 19, 12, 14, 15, 16, 15, 16, 15, 16, 15

,17,13,16,16,15,15,13,15,17,15,14,15,13,15,14` Also, find the mean by using the empirical relation.

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80. Find the mode and median of the data:

13, 16, 12, 14, 19, 12, 14, 13, 14   By using the empirical relation also find the mean.

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81. Find the median and mode of the data:

35, 32, 35, 42, 38, 32, 34

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82. Find the mode of the data:

12, 14, 16, 12, 14, 14, 16, 14, 10, 14, 18, 14

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83. The runs scored in a cricket match by 11 players are as follows : 6, 15, 120, 50, 100, 80, 10, 15, 8, 10, 10   Find the mean, mode and median of this data.

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84. Find the mode of the following data:

120, 110, 120, 130, 110, 140, 130, 120, 140

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85. Heights of 25 children (in cm) in a school are as given below:

168, 165, 163, 160, 163, 161, 162, 164, 163, 162, 164, 163, 160, 163, 163, 164, 163, 160, 165, 163, 162 . What is the mode of the hights?

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86. The scores in mathematics test (out of 25) of 15 students is as follows:

19, 25, 23, 20, 9, 20, 15, 10, 5, 16, 25, 20, 24, 12, 20

Find the mode and median of this data. Are they same?

87. Calculate the mean and median for the following data

Using empirical formula, calculate its mode

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

88. 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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89. If the mean of observations : $7, 8, 9, 11$ and x is 10, then

$x =$

$(a)\,10$

$(b)\,10$

$(c)\,15$

$(d)\,13$

90. If the mean of observations $20, 42, 35, 45, x$ is 37, then $x =$

$(a)43$

$(b)42$

$(c)44$

$(d)45$

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91. Find the mean of first five natural numbers.

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92. The mean of first five prime numbers is

5.6   (b) 5.5   5.4   (d) 5.2

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93. The mean of first seven even natural numbers is

(a)7   (b) 8 (c) 9   (d) 6

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94. The mean of first six multiples of 5 is

(a)3.5   (b) 18.5 (c)17.5   (d) 30

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95. The mean of 5 numbers is 4. If 1 is added to each number , then the new mean is (a) 4 (b) 5 (c) 3 (d) 5.5

96. If the sum of 10 observations is 95, then their mean is

(a) 9.5 (b) 10 (c)950 (d) 95

97. If the mean of observations is 12 and the sum of the observations is 132, then the value of is (a) 9 (b) 10 (c)11 (d) 12

98. Find the median of the data 9, 12, 11, 10, 8, 9, 11.

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99. The median of the data 5, 7, 9, 10, 11 is

$(a)7$

$(b)9$

$(c)11$

$(d)10$

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100. The mean of a data is 15 and the sum of the observations is 195. The number of observations is

13   (b) 19 16   (d) 17

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101. The median of 11 observations is 10. The number of possible observations in the data which are less than 10 is

$(a)5$

(b)6

$(c)3$

$(d)10$

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102. If the mode of $22, \; 21, \; 23, \; 24, \; 21, \; 20, \; 23, \; 26, \; x$ and 26 is 23, then $x =$ 20 (b) 21 23 (d) 24

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103. If the mean of 5, 7, x, 10, 5, and 7 is 7, then find the value of x.

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104. The mean of p, q, and r is same as the mean of q, 2r, and s. then which of the following is correct ?

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105. The mean of 10, 15, 19, 30, 43, 69, and x is x. Find the median of the data.

106. If the mean of 9, 10, 15, x, 6, 8, and 12 is 11, then the median of the scores.

107. The mode of the unimodal data 7, 8, 9, 8, 9, 10, 9, 10, 11, 10, 11, 12 and x is 10. Find the value of x.

108. The mean weight of 21 students is 21 kg. If a student weighing 21 kg is removed from the group, then the mean of the remaining students is 20 kg   (b) 21 kg 19 kg   (d) 18 kg

109. There are 7 observations in the data and their mean is 11. If each observation is multiplied by 2, then the mean of new observations is 11   (b) 13 22   (d) 5.5

110. The mean of 10 observations is 15. If one observation 15

is added, then the new mean is 16   (b) 11

10   (d) 15

111. The median of 10, 12, x, 6, 18 is 10. Then which of the

following is true about the value of x ?

112. The mode of the data 9, x, 6, 3, 4, 9, 8, 6, 4, 6, is 6. which

of the following cannot be the value of x ?

113. For a frequency distribution, mean, median and mode are connected by the relation (a) Mode = 3 Mean 2 median (b) Mode = 2 Median 3 Mean (c) Mode = 3 Median 2 Mean (d) Mode = 3 Median + 2 Mean