3.9 Mean Median Mode and Range: 1-hour Pack

EDEXCEL 1ST0 · Calculator allowed · about 60 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Here are the number of goals scored by a hockey team in each of 6 matches.

0, 9, 6, 4, 3, 9

(a) Work out the mean.
(b) Find the median.
(c) Work out the range.

Give any decimal answer correct to 1 decimal place.

(Total for Question 1 is 6 marks)

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2 The mean of the daily number of visitors to a museum on 5 days (in hundreds) is 9. The first 4 values are 6, 3, 2, 17. Work out the missing value.

(Total for Question 2 is 3 marks)

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3 Five whole numbers are written in order: 6, 11, 16, y, 20. The mean of the five numbers is 14. Work out the value of y.

(Total for Question 3 is 3 marks)

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4 Here are the ages, in years, of 6 members of a cycling club.

35, 32, 24, 35, 55, 14

(a) Find the median.
(b) Write down the mode.
(c) Work out the range.

(Total for Question 4 is 5 marks)

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5 The mean of the weights, in kilograms, of 6 suitcases at an airport check-in desk is 20. The first 5 values are 28, 27, 15, 12, 21. Work out the missing value.

(Total for Question 5 is 3 marks)

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6 The mean of the daily number of visitors to a museum on 7 days (in hundreds) is 16. The first 6 values are 11, 15, 29, 13, 12, 8. Work out the missing value.

(Total for Question 6 is 3 marks)

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7 Here are the number of books borrowed from a library by 8 readers in a month.

1, 7, 4, 1, 1, 9, 7, 6

(a) Work out the mean.
(b) Find the median.
(c) Write down the mode.
(d) Work out the range.

(Total for Question 7 is 7 marks)

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8 The mean of the heights, in centimetres, of 6 sunflower seedlings is 26. The first 5 values are 30, 15, 35, 19, 32. Work out the missing value.

(Total for Question 8 is 3 marks)

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9 The mean of the cost, in pounds, of 5 school lunches ordered one week is 3. The first 4 values are 5, 2, 2, 2. Work out the missing value.

(Total for Question 9 is 3 marks)

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10 Here are the number of goals scored by a hockey team in each of 8 matches.

8, 7, 2, 1, 4, 6, 5, 1

(a) Work out the mean.
(b) Find the median.
(c) Write down the mode.
(d) Work out the range.

Give any decimal answer correct to 1 decimal place.

(Total for Question 10 is 7 marks)

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11 The mean of the number of emails Ben received on each of 6 school days is 24. The first 5 values are 38, 7, 13, 35, 14. Work out the missing value.

(Total for Question 11 is 3 marks)

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12 Here are the daily rainfall, in millimetres, on 11 days in a town.

5, 9, 15, 7, 3, 12, 0, 20, 3, 16, 21

(a) Work out the mean.
(b) Find the median.
(c) Write down the mode.
(d) Work out the range.

Give any decimal answer correct to 1 decimal place.

(Total for Question 12 is 7 marks)

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13 The mean of the number of apples picked from 5 trees in an orchard is 66. The first 4 values are 91, 25, 36, 89. Work out the missing value.

(Total for Question 13 is 3 marks)

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14 Here are the heights, in centimetres, of 6 sunflower seedlings.

22, 16, 25, 28, 44, 28

(a) Find the median.
(b) Write down the mode.
(c) Work out the range.

(Total for Question 14 is 5 marks)

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Mark scheme · 3.9 Mean Median Mode and Range: 1-hour Pack

Question 1

sum of the 6 values divided by 6 (sum = 31)	**M1**
5.2 cao	**A1**
values put in order, middle value (or middle two) identified	**M1**
5 cao	**A1**
largest value minus smallest value	**M1**
9 cao	**A1**

Answer: (a) 5.2; (b) 5; (c) 9

Question 2

total of all 5 values = 5 x 9 = 45	**M1**
subtract the sum of the known values (28)	**M1**
17 cao	**A1**

Answer: 17

Question 3

sum of the five numbers = 5 x 14 = 70	**M1**
y = 70 - (6 + 11 + 16 + 20)	**M1**
17 cao	**A1**

Answer: 17

Question 4

values put in order, middle value (or middle two) identified	**M1**
33.5 cao	**A1**
35 cao	**B1**
largest value minus smallest value	**M1**
41 cao	**A1**

Answer: (a) 33.5; (b) 35; (c) 41

Question 5

total of all 6 values = 6 x 20 = 120	**M1**
subtract the sum of the known values (103)	**M1**
17 cao	**A1**

Answer: 17

Question 6

total of all 7 values = 7 x 16 = 112	**M1**
subtract the sum of the known values (88)	**M1**
24 cao	**A1**

Answer: 24

Question 7

sum of the 8 values divided by 8 (sum = 36)	**M1**
4.5 cao	**A1**
values put in order, middle value (or middle two) identified	**M1**
5 cao	**A1**
1 cao	**B1**
largest value minus smallest value	**M1**
8 cao	**A1**

Answer: (a) 4.5; (b) 5; (c) 1; (d) 8

Question 8

total of all 6 values = 6 x 26 = 156	**M1**
subtract the sum of the known values (131)	**M1**
25 cao	**A1**

Answer: 25

Question 9

total of all 5 values = 5 x 3 = 15	**M1**
subtract the sum of the known values (11)	**M1**
4 cao	**A1**

Answer: 4

Question 10

sum of the 8 values divided by 8 (sum = 34)	**M1**
4.3 cao	**A1**
values put in order, middle value (or middle two) identified	**M1**
4.5 cao	**A1**
1 cao	**B1**
largest value minus smallest value	**M1**
7 cao	**A1**

Answer: (a) 4.3; (b) 4.5; (c) 1; (d) 7

Question 11

total of all 6 values = 6 x 24 = 144	**M1**
subtract the sum of the known values (107)	**M1**
37 cao	**A1**

Answer: 37

Question 12

sum of the 11 values divided by 11 (sum = 111)	**M1**
10.1 cao	**A1**
values put in order, middle value (or middle two) identified	**M1**
9 cao	**A1**
3 cao	**B1**
largest value minus smallest value	**M1**
21 cao	**A1**

Answer: (a) 10.1; (b) 9; (c) 3; (d) 21

Question 13

total of all 5 values = 5 x 66 = 330	**M1**
subtract the sum of the known values (241)	**M1**
89 cao	**A1**

Answer: 89

Question 14

values put in order, middle value (or middle two) identified	**M1**
26.5 cao	**A1**
28 cao	**B1**
largest value minus smallest value	**M1**
28 cao	**A1**

Answer: (a) 26.5; (b) 28; (c) 28

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