

Mean, Median, Mode, and Range

Please write clearly in block capitals

Forename:

Surname:

Materials

For this paper you must have:

- mathematical instruments



You **can** use a calculator.

Instructions

- Use black ink or black ball-point pen. Draw diagrams in pencil.
- Fill in the boxes at the top of this page.
- Answer all questions.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- Do all rough work in this book. Cross through any work you do not want to be marked.

Information

- The marks for questions are shown in brackets.
- You may ask for graph paper, tracing paper and more answer paper. These must be tagged securely to this answer book.

Advice

- In all calculations, show clearly how you work out your answer.

1 23 boys and 22 girls take a maths test. *(Level 5)*
The mean mark for the boys was 44.
The mean mark for the girls was 42.
Find the mean mark for all 45 students.
Give your answer to 1 decimal place.

[3 marks]

Answer _____

2 James has a number of 6 kg sacks of carrots. *(Level 5)*
James also has number of 16 kg sacks of carrots
The mean weight of the sacks of carrots is 12 kg.
What is the smallest number of 6 kg and 16 kg sacks James could have.
You must show your working.

[3 marks]

Answer _____

3 Christopher has seven rabbits in his garden. (Level 5)

Their weight in kilograms is listed below.

1.1, 1.9, 1.5, 1.3, 2.0, 1.3, 1.7

3(a) What is the mean, mode, and median, for the weight of the rabbits?

[3 marks]

Mean = _____

Mode = _____

Median = _____

3(b) Calculate the range for the weight of the rabbits.

[1 mark]

Answer _____

3(c) Two of the rabbits are placed into their hutch.

The mean weight of the remaining five rabbits is now 1.6 kg.

Give the weight of the two rabbits that were placed in the hutch.

[3 marks]

Answer _____

Turn over for next question

5 Jane is investigating how long it takes people to complete a jigsaw. (Level 5)

She records their times below.

14, 17, 27, 11, 19, 14, 18, 13, 22, 25

5(a) What is the modal time?

[1 mark]

Answer _____

5(b) What is the median time?

[1 mark]

Answer _____

5(c) Calculate the mean and range for this data set.

[2 marks]

Mean = _____

Range = _____

Turn over for next question

6 A school is investigating how much their students use social media.

(Level 5)

They gave their results, **measured in minutes**, in the table below.

Student	Facebook	Twitter
A	62	37
B	112	130
C	172	205
D	26	98
E	91	10

Work out the difference in the mean time spent on Facebook and Twitter.

[3 marks]

Answer _____



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7 The height of 13 students are listed below. (Level 5)

141 cm, 130 cm, 135 cm, 144 cm, 130 cm, 152 cm, 145 cm,
140 cm, 153 cm, 160 cm, 180 cm, 120 cm, 134 cm

7(a) Find the range of the students heights

[1 mark]

Range = _____

7(b) Find the median of the students heights

[1 mark]

Median = _____

7(c) Find the mode of the students heights

[1 mark]

Mode = _____

7(d) Find the mean of the students heights, giving your answer to 3 significant figures.

[2 marks]

Mean = _____

End of questions