

Name:

Date:

Measures of spread and location

AS-Level Edexcel Mathematics

Mark

Score (%)

Materials

For this paper you must have:

- Ruler
- Pencil, Rubber, Protractor and Compass
- Scientific calculator, which you are expected to use when appropriate

Instructions

- Answer all questions
- Answer questions in the space provided
- All working must be shown
- Do all rough work in this book. Cross out any rough work you don't want to be marked

Information

- The marks for the questions are shown in brackets

- 1 (a) Find the mean of the following data
 0 0 0 1 1 1 1 1 2 2 2 2 2 2 3 3 3 3 4 4 4 4 4 5 5
 (b) Find the standard deviation using both forms of the formula

(Total for question 1 is 4 marks)

- 2 For these sets of data, give the:
 i. Mode ii. Mean iii. Median iv. Range v. Standard Deviation
 (a) 6, 8, 9, 2, 5, 6, 10, 8, 5, 7, 4, 8, 11
 (b) 68, 71, 72, 75, 68, 65, 69, 70, 71, 68, 62, 64, 71

(Total for question is 4 marks)

5 The times in minutes for seven students to become proficient at a new computer game were measured. The results are shown below.

15 10 48 10 19 14 16

- (a) Find the mean and standard deviation of these times.
 (b) State which of the mean, median or mode you consider would be most appropriate to use as a measure of central tendency to represent the data in this case.
 (c) For each of the two measures of average you did not choose in part (b), give a reason why you consider it inappropriate.

(Total for question is 4 marks)

6 The heights z cm of 100 boys in Year 7 at a school are summarised in the table below.

Height	125 $\leq z <$ 140	140 $\leq z <$ 145	145 $\leq z <$ 150	150 $\leq z <$ 160	160 $\leq z <$ 170
Frequency	25	29	24	18	4

- *a+ Estimate the number of boys who have heights of at least 155 cm.
 *b+ Calculate an estimate of the median height of the 100 boys

(Total for question 4 is 4 marks)

Leave
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(Total for question 1 is 4 marks)

(Total for question 1 is 4 marks)

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(Total for question 1 is 4 marks)

(Total for question 1 is 4 marks)

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(Total for question 1 is 4 marks)

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