

Centre No.						Paper Reference					Surname	Initial(s)	
Candidate No.						1	3	8	0	/	3	H	Signature

Paper Reference(s)

**1380/3H**

**Edexcel GCSE**

**Mathematics (Linear) – 1380**

**Paper 3 (Non-Calculator)**

**Box Plots**

Past Paper Questions

Arranged by Topic

Examiner's use only

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Team Leader's use only

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**Materials required for examination**

Ruler graduated in centimetres and millimetres, protractor, compasses, pen, HB pencil, eraser.  
Tracing paper may be used.

**Items included with question papers**

Nil

**Instructions to Candidates**

In the boxes above, write your centre number, candidate number, your surname, initials and signature. Check that you have the correct question paper.

Answer ALL the questions. Write your answers in the spaces provided in this question paper.

**You must NOT write on the formulae page.**

**Anything you write on the formulae page will gain NO credit.**

If you need more space to complete your answer to any question, use additional answer sheets.

**Information for Candidates**

The marks for individual questions and the parts of questions are shown in round brackets: e.g. (2).

There are 26 questions in this question paper. The total mark for this paper is 100.

There are 24 pages in this question paper. Any blank pages are indicated.

**Calculators must not be used.**

**Advice to Candidates**

Show all stages in any calculations.

Work steadily through the paper. Do not spend too long on one question.

If you cannot answer a question, leave it and attempt the next one.

Return at the end to those you have left out.

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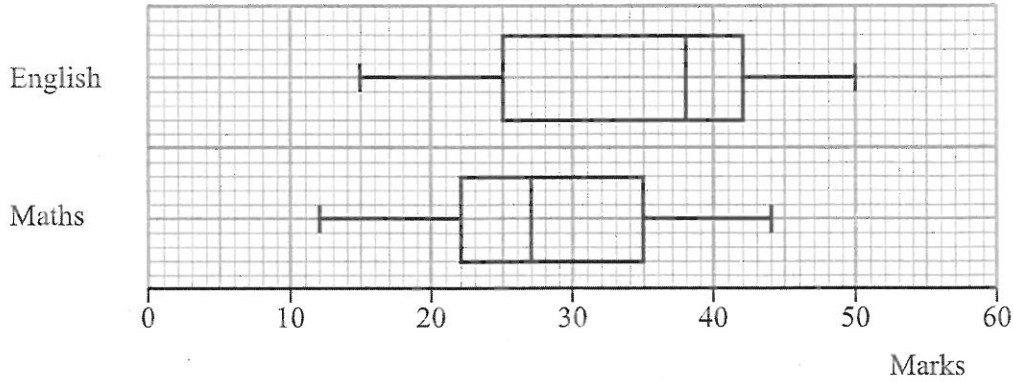
Compiled by Peter Bland



*Turn over*

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1. The box plots show the distribution of marks in an English test and in a Maths test for a group of students.



(a) What is the highest mark in the English test?

50 (1)

(b) Compare the distributions of the marks in the English test and marks in the Maths test.

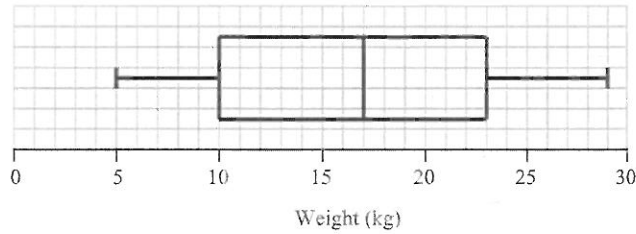
1 pupils got higher marks in English than maths (50 > 44)  
 2 The spread of marks in English is greater than that of Maths (IQR of English > IQR of Maths) (2)

(Total 3 marks)

Q1

Leave blank

2. The box plot gives information about the distribution of the weights of bags on a plane.



(a) Jean says the heaviest bag weighs 23 kg.

She is **wrong**.  
Explain why.

because the heaviest bag weighs  
15 29 kg (not 23 kg)

(1)

(b) Write down the median weight.

17 kg  
(1)

(c) Work out the interquartile range of the weights.

$$\begin{aligned} \text{IQR} &= \text{UQ} - \text{LQ} \\ &= 23 - 10 \end{aligned}$$

13 kg  
(1)

There are 240 bags on the plane.

(d) Work out the number of bags with a weight of 10 kg or less.

60  
(2)

Q2

(Total 5 marks)

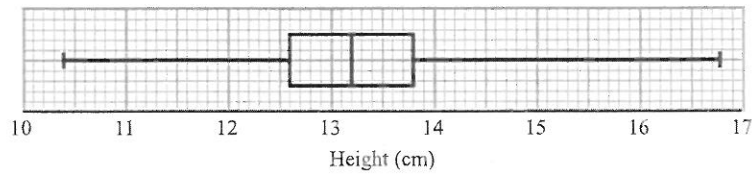
$$\text{UQ} = 23$$

$$\Rightarrow \frac{1}{4} \times 240$$

$\Rightarrow 60^{\text{th}}$  value  
( $< 25\%$ )

Leave  
blank

3. Mr Green measured the height, in cm, of each tomato plant in his greenhouse.  
He used the results to draw the box plot shown below.



- (a) Write down the median height.

13.2 cm  
(1)

- (b) Work out the interquartile range.

$$IQR = 13.8 - 12.6$$

1.2 cm  
(2)

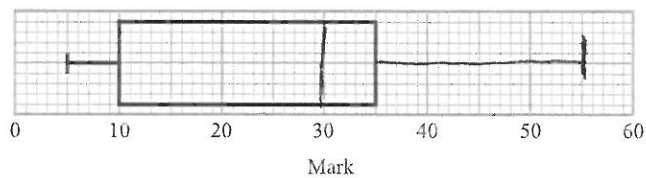
- (c) Explain why the interquartile range may be a better measure of spread than the range.

because the IQR takes into account the middle 50% of the data.  
(1)

(Total 4 marks)

Q3

4. The incomplete box plot and table show some information about some marks.



	Mark
Lowest mark	5
Lower quartile	10
Median	30
Upper quartile	35
Highest mark	55

(a) Use the information in the table to complete the box plot. ✓ (2)

(b) Use the information in the box plot to complete the table. ✓ (1)

(Total 3 marks)

Q4

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