

AQA, OCR, Edexcel

GCSE

GCSE Maths

Box Plots Answers

Name:

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Total Marks: /12

Box Plots

1. Students in year seven Calverton high school took part in English exams. The boy's results are summarised below.

The lowest mark was 12

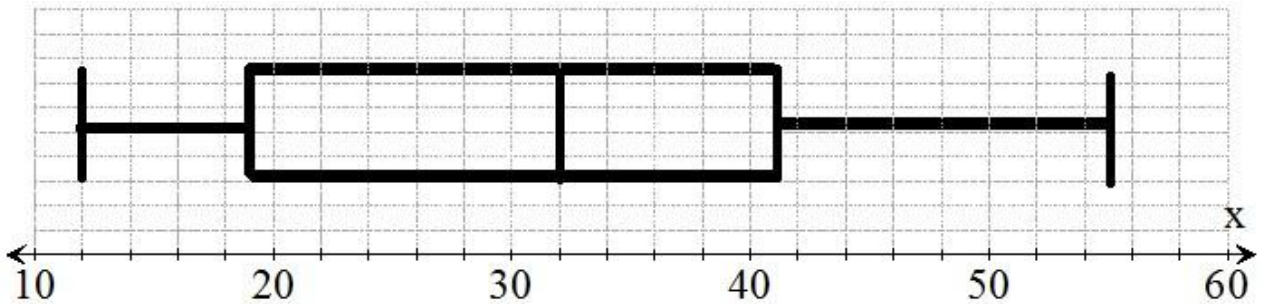
The highest mark was 55

The median was 32

The upper quartile was 41

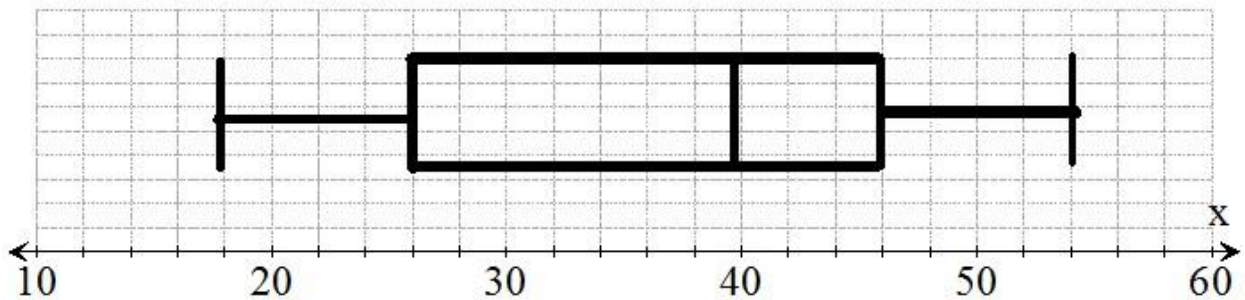
The interquartile range was 22

- a. On the grid below, draw a box plot to represent this information.



(2 Marks)

The box plot below shows the girls results in the same exams.



- b. Compare the distribution of results for the Boys and girls.

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The **range** for boys results is greater than the range for girls results. This shows that the boys had a **greater spread of results**.

The **median** for girls results is greater than the median for boys, this shows the girls **generally scored better**

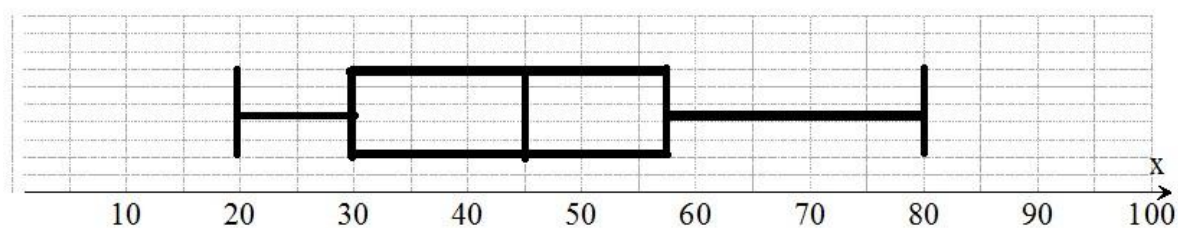
(2 Marks)

2. Tom kept a record of the amount of time birds spend in his garden over the past year.

The table below shows the information about the amount of time robins spent in his garden over that period.

	Minutes
Least amount of time	20
Range	60
Median	45
Lower quartile	30
Upper quartile	57.5

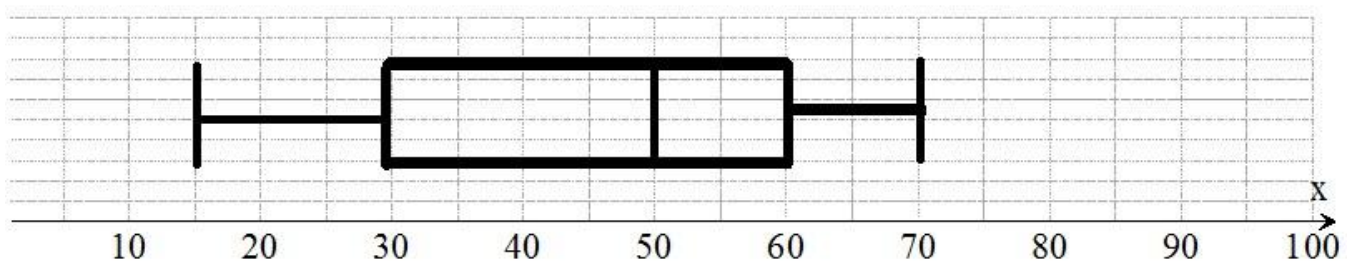
- a. On the grid below, draw a boxplot to represent this information



(2 Marks)

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The box plot below shows information about the amount of time spent in the garden by Sparrows.



b. Compare the distribution of time spent in the garden by Robins and sparrows.

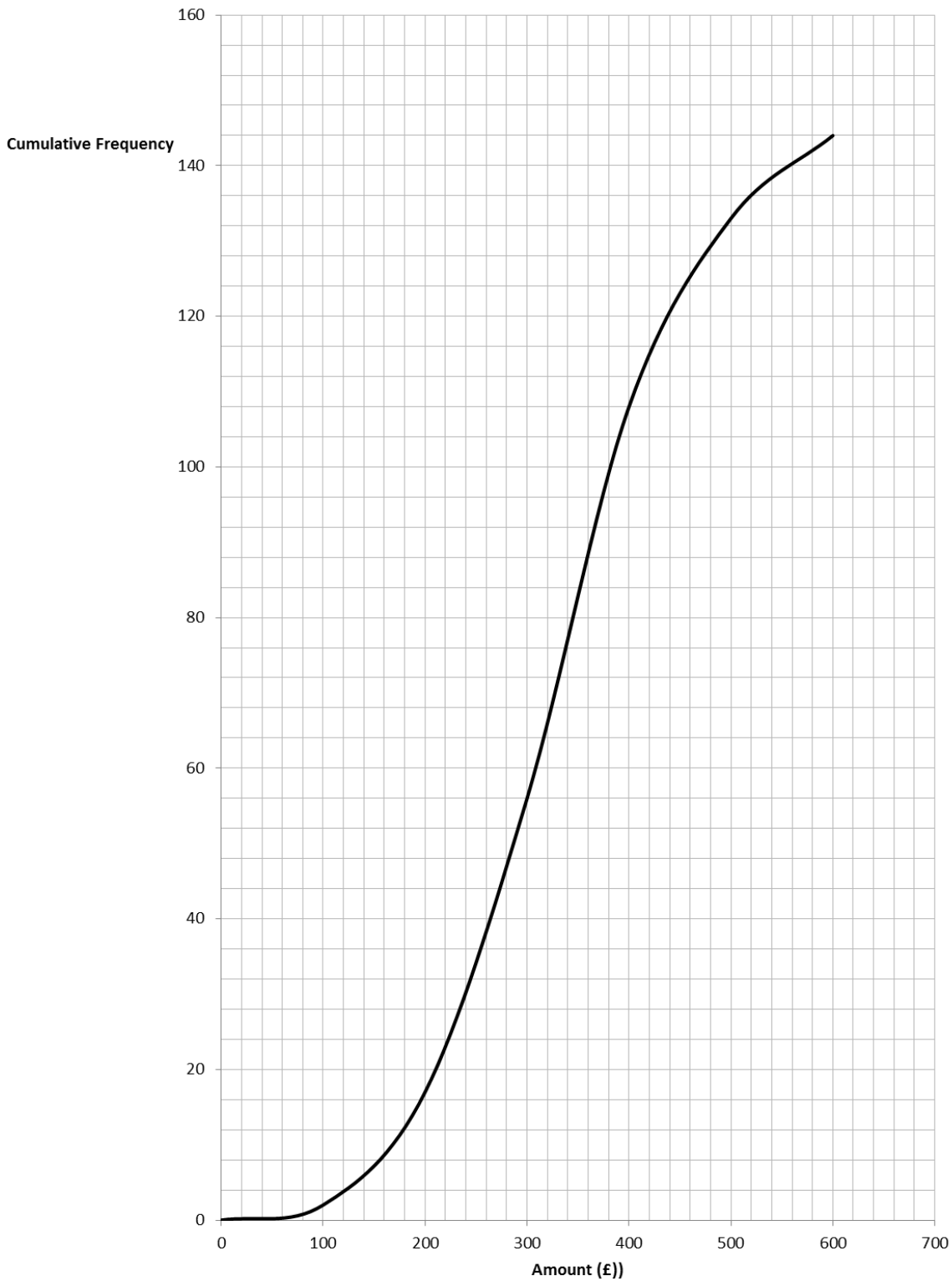
The range of time spent in the garden by robins is greater than the range of times for sparrows. This shows the robins had a greater spread of times.

The median time for sparrows is greater than the median time for robins, this shows sparrows generally spent longer in the garden than robins.

(2 Marks)

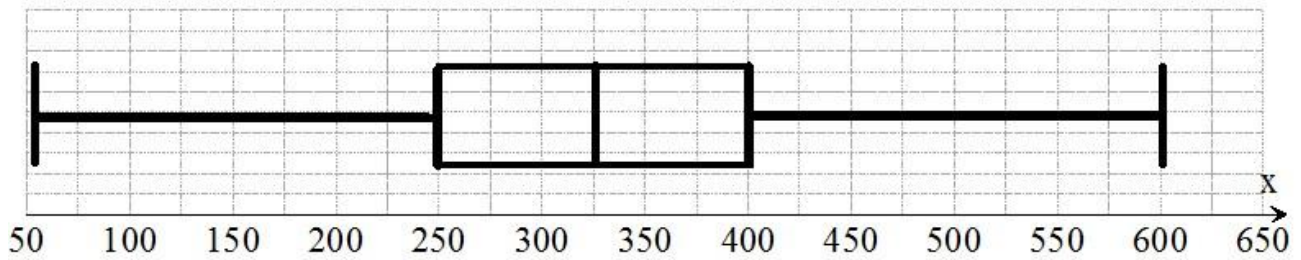
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3. The amount of money spent by 144 people over the 2014 Christmas period is summarised in a cumulative frequency diagram below. The lowest amount spent was £55 and the greatest amount spent was £600.



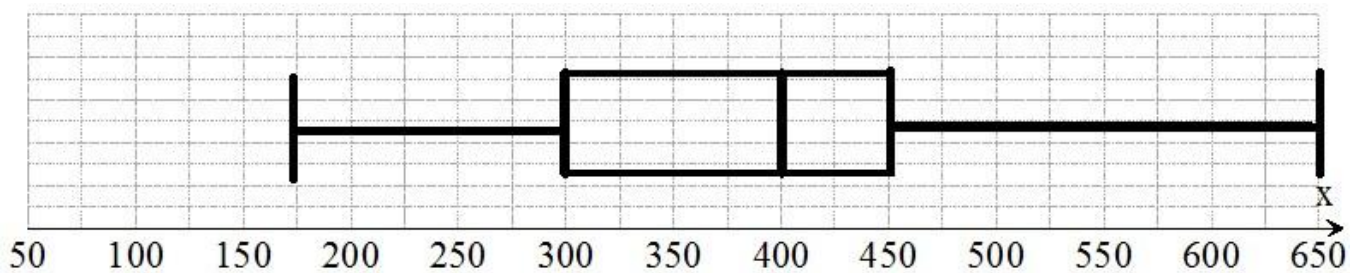
Visit <http://www.mathsmadeeasy.co.uk/> for more fantastic resources.

- a. Use this information and the cumulative frequency to draw a box plot on the grid below.



(2 Marks)

The box plot below shows the amount spent by people over the Christmas period in 2015.



- b. Compare the distribution of amount spent in 2014 and 2015.

The range of spending in 2014 is greater than the range of spending in 2015. This shows that in 2014 there was a greater spread of spending.

The median amount spent in 2015 was greater than the median spent in 2014.

This shows that in 2015 people generally spent more.

(2 marks)