Skewness

Grade 6 | Higher | 5 questions, 20 marks

GCSE Statistics topic practice

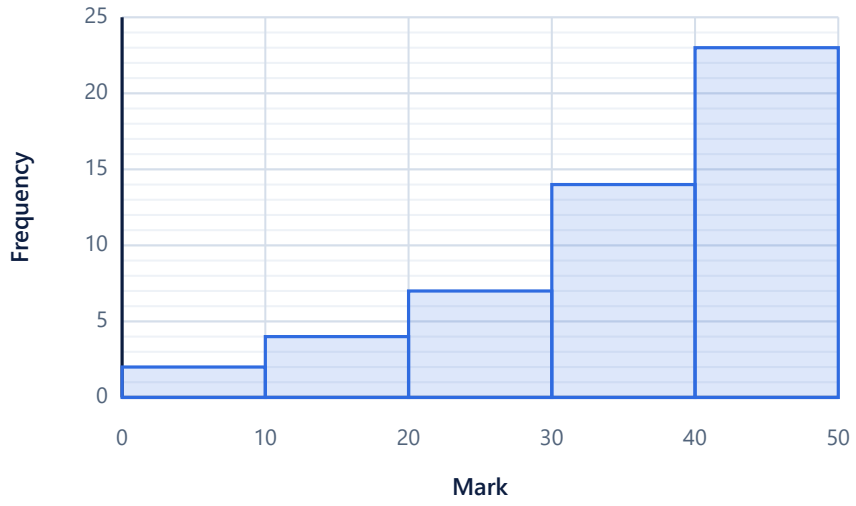
Name: _____ **Date:** _____ **Score:** _____ **/ 20**

1 The histogram shows the marks of 50 students in a test that was marked out of 50.

a. Describe the skew of the distribution of marks. (1)

b. Interpret the skew in the context of the test. (1)

c. Without doing any calculations, state whether the mean mark is greater than or less than the median mark. Give a reason for your answer. (1)



(3 marks)

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2 A teacher gives her class a spelling test marked out of 40. Here is a summary of the marks.

Lowest mark	Lower quartile	Median	Upper quartile	Highest mark
5	18	30	34	40

a. On the grid, draw a box plot for this information. (2)

b. Describe the skew of the distribution of marks. Give a reason for your answer. (2)



(4 marks)

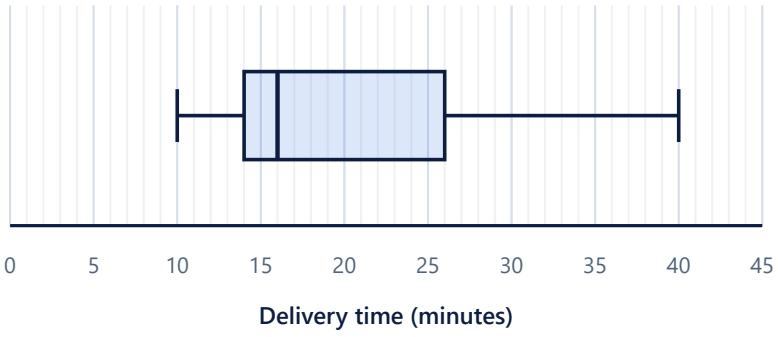
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3 The box plot shows the delivery times, in minutes, for the orders from a takeaway on one evening.

a. Describe the skew of the distribution of delivery times. Give a reason for your answer. (2)

b. Interpret the skew in the context of the delivery times. (1)

c. The owner wants to give customers a typical delivery time. Explain why the median is a better average to use than the mean. (1)



(4 marks)

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4 The table shows the mean and the median of the prices of the houses sold by two estate agents last year.

	Mean price	Median price
Agent A	£248 000	£215 000
Agent B	£231 000	£232 000

a. Describe the skew of the distribution of prices for each estate agent. Give a reason for each answer. (3)

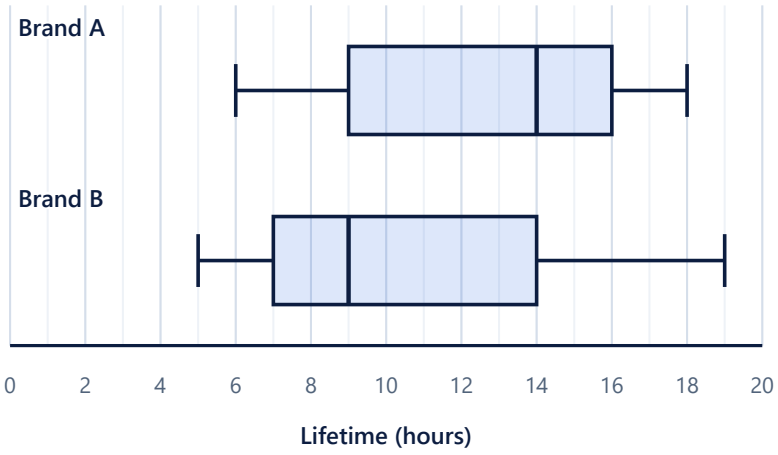
b. For which estate agent is the mean a more suitable average to use? Give a reason for your answer. (1)

(4 marks)

5 The box plots show the lifetimes, in hours, of samples of two brands of battery.

a. Describe the skew of the distribution of lifetimes for each brand. Give a reason for each answer. (3)

b. Anil wants batteries that usually last a long time. Which brand should he choose? Give a reason for your answer. (2)



(5 marks)

End of questions | Total 20 marks

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