



S29-test Cumulative Frequency: Test Pack

EDEXCEL 1ST0 · Calculator allowed · about 5 minutes

Total Marks

Name: _____ Date: ____ / ____ / ____

Answer ALL questions. Show all your working.

1 For each statement about cumulative frequency graphs, write down whether it is True or False.

(i) A cumulative frequency graph can be used to find estimates for the median and the quartiles of grouped data. **(1)**

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(ii) As the value of the variable increases, the cumulative frequency can decrease. **(1)**

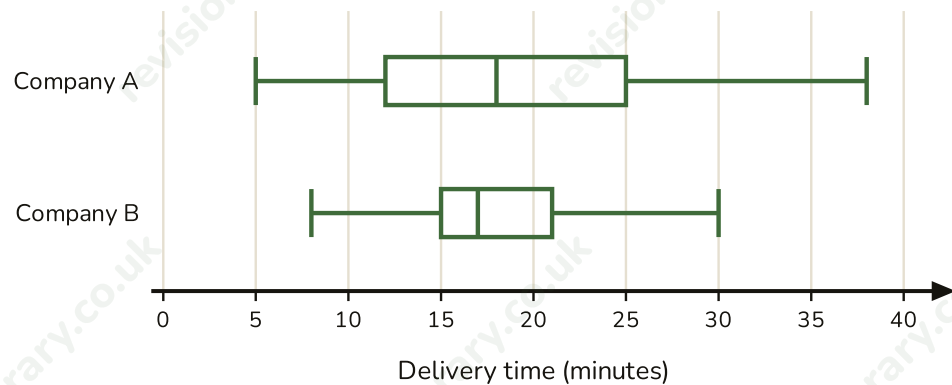
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(iii) Each point on a cumulative frequency graph is plotted at the upper boundary of its class interval. **(1)**

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(Total for Question 1 is 3 marks)

- 2** The box plots show the delivery times, in minutes, for a sample of parcels delivered by Company A and by Company B.



- (a)** Work out the interquartile range of the delivery times for (i) Company A and (ii) Company B. (2)
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- (b)** Compare the delivery times of the two companies. Give your answer in the context of the question. (2)

(Total for Question 2 is 4 marks)

Mark scheme · S29-test Cumulative Frequency: Test Pack

Question 1

- (i) **B1** True cao
- (i) **Answer: True**
- (ii) **B1** False cao
- (ii) **Answer: False**
- (iii) **B1** True cao
- (iii) **Answer: True**

Question 2

- (a) **A1** Company A: $25 - 12 = 13$ minutes
- (a) **A1** Company B: $21 - 15 = 6$ minutes
- (a) **Answer: Company A: 13 minutes; Company B: 6 minutes**
- (b) **B1** comparison of median: Company A has a slightly higher median (18 minutes) than Company B (17 minutes) oe
- (b) **B1** comparison of spread in context: Company B has a smaller interquartile range, so Company B's delivery times are more consistent (less varied) than Company A's, despite similar medians
- (b) **Answer: Similar median delivery times, but Company B is more consistent (smaller IQR).**