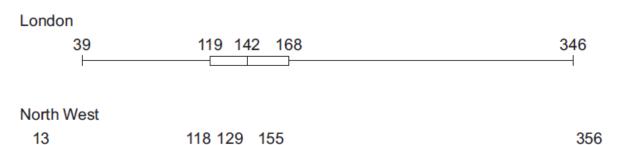
## AQA - Data presentation and interpretation - A2 Mathematics P3

1. June/2020/Paper\_3/No.12

The box plot below summarises the  $CO_2$  emissions, in g/km, for cars in the Large Data Set from the London and North West regions.



0 50 100 150 200 250 300 350 400

(a) Using the box plot, give **one** comparison of central tendency and **one** comparison of

spread for the two regions.

[2 marks]

Comparison of central tendency

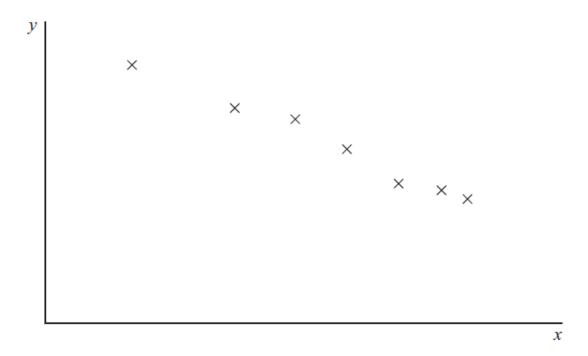
Comparison of spread

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Jaspal, an environmental researcher, used all of the data in the Large Data Set to produce a statistical comparison of the CO <sub>2</sub> and CO emissions in regions of England.					
Using your knowledge of the Large Data Set, give <b>two</b> reasons why his conclusions may be invalid.					
[2 marks					

2.	lune	/2019	/Paper	2	/No 10
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Which of the options below best describes the correlation shown in the diagram below?



Tick	one	hox
1101		$\omega \omega \wedge$ .

•	[1 mark]
moderate positive	
strong positive	
moderate negative	
strong negative	

## **3.** June/2019/Paper\_3/No.12

Amelia decides to analyse the heights of members of her school rowing club.

The heights of a random sample of 10 rowers are shown in the table below.

Rower	Jess	Nell	Liv	Neve	Ann	Tori	Maya	Kath	Darcy	Jen
Height (cm)	162	169	172	156	146	161	159	164	157	160

(a)	Any value more than 2 standard deviations from the mean may be regarded as an
	outlier.

Verify that Ann's height is an outlier.

Fully justify your answer.	[4 marks

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(b)	Amelia thinks she may have written down Ann's height incorrectly.							
	If Ann's height were discarded, state with a reason what, if any, difference this woul make to the mean and standard deviation.							
	[2 marks							