

Edexcel

A Level

A Level Mathematics

Understanding the Large
Dataset

Name:

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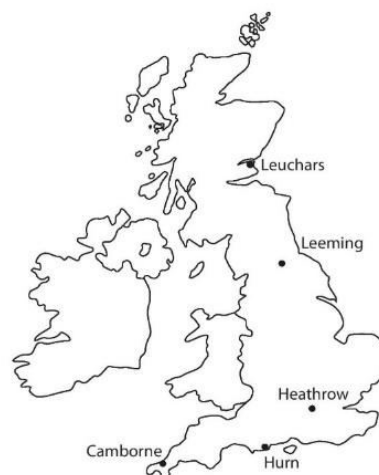
Mathsmadeeasy.co.uk

Total Marks:

Understanding the Large Dataset- Answers

Edexcel

- 1) i) Draw a boxplot for the Daily Mean Temperatures in 1987 from all UK sites combined and compare it to a similar boxplot for 2015. [6]
ii) Comment on the distributions of the Daily Mean Temperatures. [2]
- 2) Summarise the observations mean, median and range of Daily Total Rainfall for each of the UK sites in 1987. [15]
- 3) i) Find the variable most correlated to Daily Maximum Gust (0000-2400) (kn) in the Heathrow 1987 data. [2]
ii) Use this as the independent variable in a linear regression model, predicting the Daily Maximum Gust. State this model. [2]
iii) Work out the mean absolute error between the predicted and actual Daily Maximum Gust. [1]
iv) Use the same model to predict the Daily Maximum Gust for Heathrow 2015. Then work out the mean absolute error between the predicted and actual Daily Maximum Gust. [2]
v) What is the difference in error between 1987 and 2015. What might be the reason for this? [1]
- 4) On the following sketch of the UK draw an arrow showing mean Daily Mean Wind Direction (o) for each airport in 2015. [5]



- 5) Plot and comment on the 7-day moving average Rainfall (24 hour total) (line) and Daily Mean Air Temperature (bar) on the same graph for Beijing 1987. [10]