**A Level Maths Bridging Work Instructions**

This bridging work focuses on an important element of the A Level course - the large data set.

You have been provided with a copy of this data set, and should use it to help you answer the questions in the pack. If you are not familiar with using Excel and the data looks overwhelming at first, here is a video which will help. [Large Data Set Explained](https://www.bing.com/videos/search?q=a+level+maths+large+data+set+help+video&qpvt=a+level+maths+large+data+set+help+video&view=detail&mid=C0BED8EF58A41E08EBE7C0BED8EF58A41E08EBE7&&FORM=VRDGAR&ru=%2Fvideos%2Fsearch%3Fq%3Da%2Blevel%2Bmaths%2Blarge%2Bdata%2Bset%2Bhelp%2Bvideo%26qpvt%3Da%2Blevel%2Bmaths%2Blarge%2Bdata%2Bset%2Bhelp%2Bvideo%26FORM%3DVDRE)

Please note that this data set is referenced in the exam but is freely available for you to study beforehand. This is for the exam board we use at Astley Cooper, which is Edexcel. If you are intending to study Maths at a different school from September, they may have a slightly different data set. It will still benefit you to complete these tasks and refresh your statistical knowledge!

A Level Mathematics

Statistics pre-course work

Here in the Astley Cooper Maths department, we want you to be as successful as possible in your A Level studies. The A Level builds on the work you did at GCSE, and we will expect you to be confident in your GCSE skills and topics as we begin the A Level course.

We know that you will be more successful if we do not have to re-teach these skills, as this means we spend longer on the new material.

Therefore you are expected to complete this booklet in full and email it to s.fernando@astleycooper.herts.sch.uk or upload on Google Classroom. Failure to complete this homework to an acceptable standard may affect you beginning the course.

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| Name:  |    |
| --- | --- |
| Received By teacher on:  |    |

# Large Data Set

All A Level exam boards are obligated to provide a ‘large data set’. Data in exam questions will often be from this set, and for this exercise you will explore this data (which is publicly available) in Microsoft Excel.

It is important to note that you are expected to be familiar with this data set for the statistics part of the course, including some basic geographic knowledge! So for some of these you will need to use a search engine to investigate.

## Dates

We are provided with weather readings in two years for all locations: \_\_\_\_\_\_\_\_\_\_.and \_\_\_\_\_\_\_\_\_\_..

In both years, data is only provided from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. This is a period

of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.days.

## UK Locations

There are five UK locations, and three international locations where weather data has been taken.

Complete this information from the northern-most UK location to the southernmost UK location.

**UK location 1**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is in the county of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. It is a small town, located

7 miles from the city of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The weather station is likely to be here because of the former RAF base.

**UK location 2**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is in the county of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. It is a village, located to

the east of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ National Park and to the west of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ National Park. There is an operational RAF base in the village, and this is the likely location of the weather station.

**UK location 3**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is an international airport located \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ miles to

the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of Central London. It is in the London Borough of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**UK location 4**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is in the county of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. It is the nearest village to

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Airport.

**UK location 5**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is in the county of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. It has a population of more than 20,000 and used to the richest mining area in the world. They used to mine

 predominantly \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, but also \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

##

## Data Units for UK data

Complete the table below:

|  | **Units**  | **Rounding accuracy (to the nearest…)**  | **Continuous, discrete or qualitative**  |
| --- | --- | --- | --- |
| Daily mean temperature (measured from 9am GMT)  |   |   |   |
| Daily total rainfall (measured from 9am GMT)  |   |   |   |
| Daily total sunshine (measured from midnight GMT)  |   |   |   |
| Daily mean windspeed (1) (measured from midnight GMT)  |   |   |   |
| Daily mean windspeed (2) (measured from midnight GMT)  |   |   |   |
| Daily maximum gust (measured from midnight GMT)  |   |   |   |
| Daily maximum relative humidity (measured from midnight GMT)  |   |   |   |
| Daily mean total cloud  |    |   |   |
| Daily mean visibility  |    |   |   |
| Daily mean pressure  |    |   |   |
| Daily mean wind direction (1)  |    |   |   |
| Cardinal direction (of daily mean wind direction)  |   |   |   |
| Daily Max gust corresponding direction  |   |   |   |
| Cardinal direction (of daily Max gust corresponding direction)  |   |   |   |

##

## Questions on the data types

What is the conversion rate between knots and mph?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ What is the conversion rate between hPa and millibars?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ How is snow and hail recorded?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

For temperature, rainfall, sunshine, wind and relative humidity, what does “n/a” mean, and how should we treat this when analysing data (data cleaning)?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ What is a relative humidity of more than 95% likely to represent?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

For visibility, what does a “-” mean?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

For rainfall, what does “tr” mean, and how should we treat this when analysing data (data cleaning)?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Data ranges

It helps to have a rough idea of the upper and lower limits of the data for each location. Complete the tables below (round temperature to nearest 0.1° and pressure to nearest whole hPa):

### Camborne

|   | Mean daily temperature  | Mean daily wind speed  | Mean daily pressure  |
| --- | --- | --- | --- |
|   | Min  | Max  | Min  | Max  | Min  | Max  |
| May 1987  |   |   |   |   |   |   |
| June 1987  |   |   |   |   |   |   |
| July 1987  |   |   |   |   |   |   |
| August 1987  |   |   |   |   |   |   |
| September 1987  |   |   |   |   |   |   |
| October 1987  |   |   |   |   |   |   |
|   |   |   |   |   |   |   |
| May 2015  |   |   |   |   |   |   |
| June 2015  |   |   |   |   |   |   |
| July 2015  |   |   |   |   |   |   |
| August 2015  |   |   |   |   |   |   |
| September 2015  |   |   |   |   |   |   |
| October 2015  |   |   |   |   |   |   |

### Hurn

|   | Mean daily temperature  | Mean daily wind speed  | Mean daily pressure  |
| --- | --- | --- | --- |
|   | Min  | Max  | Min  | Max  | Min  | Max  |
| May 1987  |   |   |   |   |   |   |
| June 1987  |   |   |   |   |   |   |
| July 1987  |   |   |   |   |   |   |
| August 1987  |   |   |   |   |   |   |
| September 1987  |   |   |   |   |   |   |
| October 1987  |   |   |   |   |   |   |
|   |   |   |   |   |   |   |
| May 2015  |   |   |   |   |   |   |
| June 2015  |   |   |   |   |   |   |
| July 2015  |   |   |   |   |   |   |
| August 2015  |   |   |   |   |   |   |
| September 2015  |   |   |   |   |   |   |
| October 2015  |   |   |   |   |   |   |

### Heathrow

|   | Mean daily temperature  | Mean daily wind speed  | Mean daily pressure  |
| --- | --- | --- | --- |
|   | Min  | Max  | Min  | Max  | Min  | Max  |
| May 1987  |   |   |   |   |   |   |
| June 1987  |   |   |   |   |   |   |
| July 1987  |   |   |   |   |   |   |
| August 1987  |   |   |   |   |   |   |
| September 1987  |   |   |   |   |   |   |
| October 1987  |   |   |   |   |   |   |
|   |   |   |   |   |   |   |
| May 2015  |   |   |   |   |   |   |
| June 2015  |   |   |   |   |   |   |
| July 2015  |   |   |   |   |   |   |
| August 2015  |   |   |   |   |   |   |
| September 2015  |   |   |   |   |   |   |
| October 2015  |   |   |   |   |   |   |

### Leeming

|   | Mean daily temperature  | Mean daily wind speed  | Mean daily pressure  |
| --- | --- | --- | --- |
|   | Min  | Max  | Min  | Max  | Min  | Max  |
| May 1987  |   |   |   |   |   |   |
| June 1987  |   |   |   |   |   |   |
| July 1987  |   |   |   |   |   |   |
| August 1987  |   |   |   |   |   |   |
| September 1987  |   |   |   |   |   |   |
| October 1987  |   |   |   |   |   |   |
|   |   |   |   |   |   |   |
| May 2015  |   |   |   |   |   |   |
| June 2015  |   |   |   |   |   |   |
| July 2015  |   |   |   |   |   |   |
| August 2015  |   |   |   |   |   |   |
| September 2015  |   |   |   |   |   |   |
| October 2015  |   |   |   |   |   |   |

### Leuchars

|   | Mean daily temperature  | Mean daily wind speed  | Mean daily pressure  |
| --- | --- | --- | --- |
|   | Min  | Max  | Min  | Max  | Min  | Max  |
| May 1987  |   |   |   |   |   |   |
| June 1987  |   |   |   |   |   |   |
| July 1987  |   |   |   |   |   |   |
| August 1987  |   |   |   |   |   |   |
| September 1987  |   |   |   |   |   |   |
| October 1987  |   |   |   |   |   |   |
|   |   |   |   |   |   |   |
| May 2015  |   |   |   |   |   |   |
| June 2015  |   |   |   |   |   |   |
| July 2015  |   |   |   |   |   |   |
| August 2015  |   |   |   |   |   |   |
| September 2015  |   |   |   |   |   |   |
| October 2015  |   |   |   |   |   |   |

##

## Complete the following for the UK locations:

The location with the **highest** mean daily temperature was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_., recorded in

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (month) \_\_\_\_\_\_\_\_\_ (year).

The location with the **lowest** mean daily temperature was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_., recorded in

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (month) \_\_\_\_\_\_\_\_\_ (year).

The location with the **highest** mean daily wind speed was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_., recorded in

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (month) \_\_\_\_\_\_\_\_\_ (year).

The location with the **lowest** mean daily wind speed was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_., recorded in

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (month) \_\_\_\_\_\_\_\_\_ (year).

The location with the **highest** mean daily pressure was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_., recorded in

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (month) \_\_\_\_\_\_\_\_\_ (year).

The location with the **lowest** mean daily pressure was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_., recorded in

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (month) \_\_\_\_\_\_\_\_\_ (year).

## International Locations

Complete this information from the western-most international location to the eastern-most international location.

**International location 1**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is in the US state of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, where it is the

most populous city. It is a coastal city, on the coast of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The humid

subtropical climate means there is a ‘wet’ season between \_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**International location 2**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the capital city of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.and home to

the \_\_\_\_\_\_\_\_\_\_(year) Olympic Games. It is not on the coast, and the weather station has an

elevation of \_\_\_\_\_\_\_m. Air pollution has changed average summer temperatures by 3 degrees in the last 50 years. The monsoon-influenced humid continental climate means that ¾ of average annual

 rainfall occurs between \_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**International location 3**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is in the Australian state of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

and is the \_\_\_\_\_\_\_ largest city in Australia. It was named after a city in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. It is the

only set of data we use for a city in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ hemisphere. It has a hot-summer

Mediterranean climate, and most rain falls in the winter months of \_\_\_\_\_\_\_\_\_\_\_\_\_ to \_\_\_\_\_\_\_\_\_\_\_.

## Data Units for International data

Complete the table below:

|  | **Units**  | **Rounding accuracy (to the nearest…)**  | **Continuous, discrete or qualitative**  |
| --- | --- | --- | --- |
| Daily mean air temperature   |   |   |   |
| Rainfall (24 hour total)   |   |   |   |
| Daily mean pressure (hPa)  |    |   |   |
| Daily mean windspeed (1)   |   |   |   |
| Daily mean windspeed (2)   |   |   |   |

## Data ranges

It helps to have a rough idea of the upper and lower limits of the data for each location. Complete the tables below (round temperature/wind speed to nearest 0.1 and pressure to nearest whole hPa): Jacksonville

|   | Mean daily temperature  | Mean daily wind speed  | Mean daily pressure  |
| --- | --- | --- | --- |
|   | Min  | Max  | Min  | Max  | Min  | Max  |
| May 1987  |   |   |   |   |   |   |
| June 1987  |   |   |   |   |   |   |
| July 1987  |   |   |   |   |   |   |
| August 1987  |   |   |   |   |   |   |
| September 1987  |   |   |   |   |   |   |
| October 1987  |   |   |   |   |   |   |
|   |   |   |   |   |   |   |
| May 2015  |   |   |   |   |   |   |
| June 2015  |   |   |   |   |   |   |
| July 2015  |   |   |   |   |   |   |
| August 2015  |   |   |   |   |   |   |
| September 2015  |   |   |   |   |   |   |
| October 2015  |   |   |   |   |   |   |

### Beijing

|   | Mean daily temperature  | Mean daily wind speed  | Mean daily pressure  |
| --- | --- | --- | --- |
|   | Min  | Max  | Min  | Max  | Min  | Max  |
| May 1987  |   |   |   |   |   |   |
| June 1987  |   |   |   |   |   |   |
| July 1987  |   |   |   |   |   |   |
| August 1987  |   |   |   |   |   |   |
| September 1987  |   |   |   |   |   |   |
| October 1987  |   |   |   |   |   |   |
|   |   |   |   |   |   |   |
| May 2015  |   |   |   |   |   |   |
| June 2015  |   |   |   |   |   |   |
| July 2015  |   |   |   |   |   |   |
| August 2015  |   |   |   |   |   |   |
| September 2015  |   |   |   |   |   |   |
| October 2015  |   |   |   |   |   |   |

### Perth

|   | Mean daily temperature  | Mean daily wind speed  | Mean daily pressure  |
| --- | --- | --- | --- |
|   | Min  | Max  | Min  | Max  | Min  | Max  |
| May 1987  |   |   |   |   |   |   |
| June 1987  |   |   |   |   |   |   |
| July 1987  |   |   |   |   |   |   |
| August 1987  |   |   |   |   |   |   |
| September 1987  |   |   |   |   |   |   |
| October 1987  |   |   |   |   |   |   |
|   |   |   |   |   |   |   |
| May 2015  |   |   |   |   |   |   |
| June 2015  |   |   |   |   |   |   |
| July 2015  |   |   |   |   |   |   |
| August 2015  |   |   |   |   |   |   |
| September 2015  |   |   |   |   |   |   |
| October 2015  |   |   |   |   |   |   |

## Complete the following for the international locations:

The location with the **highest** mean daily temperature was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_., recorded in

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (month) \_\_\_\_\_\_\_\_\_ (year).

The location with the **lowest** mean daily temperature was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_., recorded in

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (month) \_\_\_\_\_\_\_\_\_ (year).

The location with the **highest** mean daily wind speed was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_., recorded in

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (month) \_\_\_\_\_\_\_\_\_ (year).

The location with the **lowest** mean daily wind speed was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_., recorded in

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (month) and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (month) \_\_\_\_\_\_\_\_\_ (year).

The location with the **highest** mean daily pressure was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_., recorded in

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (month) \_\_\_\_\_\_\_\_\_ (year).

The location with the **lowest** mean daily pressure was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_., recorded in

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (month).\_\_\_\_\_\_\_\_\_ (year).

## Other extremes

Finally, looking at all the find, find the maximum and minimum values for these other variables. Where there is a (1) and (2), there are two joint equal maxima/minima – try to find them both.

|   | Minimum  | Date  | Location  | Maximum  | Date (d/m/y)  | Location  |
| --- | --- | --- | --- | --- | --- | --- |
| UK rainfall (mm)  |   |   |   |   |   |   |
| International rainfall (mm)  |   |   |   |   |   |   |
| UK sunshine hour (1)  |   |   |   |   |   |   |
| UK sunshine hour (2)  |   |   |   |   |   |   |
| UK maximum gust  |   |   |   |   |   |   |
| UK relative humidity (%)  |   |   |   |   |   |   |
| Visibility (Dm) (1)  |   |   |   |   |   |   |
| Visibility (Dm) (2)  |   |   |   |   |   |   |

According to the Beaufort scale, the strongest average wind described was \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and

 the majority of wind speeds were described as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

## References

### Beaufort conversion chart

Here is the official Beaufort scale conversions from the Met Office website. For the purpose of our data set, the ones marked \* have been simplified by Edexcel to ‘light’.

| Beaufort wind scale  | Wind Speed (knots)  | Wind descriptive terms  |
| --- | --- | --- |
| 0  | <1  | Calm  |
| 1  | 1-3  | Light air (\*)  |
| 2  | 4-6  | Light breeze (\*)  |
| 3  | 7-10  | Gentle breeze (\*)  |
| 4  | 11-16  | Moderate breeze  |
| 5  | 17-21  | Fresh breeze  |
| 6  | 22-27  | Strong breeze  |
| 7  | 28-33  | Near gale  |
| 8  | 34-40  | Gale  |
| 9  | 41-47  | [Strong gale\*](https://www.metoffice.gov.uk/weather/guides/coast-and-sea/beaufort-scale#notes)  |
| 10  | 48-55  | Storm  |
| 11  | 56-63  | Violent storm  |
| 12  | 64+  | Hurricane  |

### How we measure cloud amount (from the Met Office website)

At any time different types of cloud at different heights above the ground may be visible from an observing station. Total cloud amount is the fraction of the sky covered by cloud of any type or height above the ground. Cloud amount is reported in oktas or eighths with the additional convention that:

* 0 oktas represents the complete absence of cloud
* 1 okta represents a cloud amount of 1 eighth or less, but not zero
* 7 oktas represents a cloud amount of 7 eighths or more, but not full cloud cover
* 8 oktas represents full cloud cover with no breaks
* 9 oktas represents sky obscured by fog or other meteorological phenomena

Total cloud amount is only reported from stations where the human observer is present.