

1E The Large Data Set

Dates:

Daily mean temperature

Daily total rainfall

Daily total sunshine

Daily mean wind direction and windspeed

Beaufort scale	Descriptive term	Average speed at 10metres above ground
0	Calm	Less than 1 knot
1-3	Light	1-10 knots
4	Moderate	11-16 knots
5	Fresh	17-21 knots

Daily maximum gust

Daily maximum relative humidity

Daily mean cloud cover

Daily mean visibility

Daily mean pressure

1. Look at the extract given
 - a) Describe the type of data represented by daily total rainfall

Date	Daily Mean Temperature (0900-0900) (°C)	Daily Total Rainfall (0900-0900) (mm)	Daily Total Sunshine (0000-2400) (hrs)	Daily Mean Windspeed (0000-2400) (kn)	Daily Mean Windspeed (0000-2400) (Beaufort conversion)	Daily Maximum Gust (0000-2400) (kn)
01/06/1987	15.1	0.6	4.5	7	Light	19
02/06/1987	12.5	4.7	0	7	Light	22
03/06/1987	13.8	tr	5.6	11	Moderate	25
04/06/1987	15.5	5.3	7.8	7	Light	17
05/06/1987	13.1	19	0.5	10	Light	33
06/06/1987	13.8	0	8.9	19	Fresh	46
07/06/1987	13.2	tr	3.8	11	Moderate	27
08/06/1987	12.9	1	1.7	9	Light	19
09/06/1987	11.2	tr	5.4	6	Light	19
10/06/1987	9.2	1.3	9.7	4	Light	n/a
11/06/1987	12.6	0	12.5	6	Light	18
12/06/1987	10.4	0	11.9	5	Light	n/a
13/06/1987	9.6	0	8.6	5	Light	15
14/06/1987	10.2	0	13.1	5	Light	18
15/06/1987	9.2	3.7	7.1	4	Light	25
16/06/1987	10.4	5.6	8.3	6	Light	25
17/06/1987	12.8	0.1	5.3	10	Light	27
18/06/1987	13.0	7.4	3.2	9	Light	24
19/06/1987	14.0	tr	0.4	12	Moderate	33
20/06/1987	12.6	0	7.7	6	Light	17

Alison is investigating daily maximum gust. She wants to select a sample size of size 5 from the first 20 days in Hurn in June 1987. She uses the first two digits of the date as the sampling frame and generates 5 random numbers from 1-20

- b) State the type of sampling method used
- c) Why might the method not generate a sample of size 5?

calculate:

- d) The mean daily mean temperature for the first 5 days of June in Hurn in 1987
- e) The median daily total rainfall for the week of 14th June to 20th June inclusive

The median daily total rainfall for the same week in Perth was 19.0mm. Karl states that more southerly countries experience higher rainfall during June

- f) State, with a reason, whether your answer to e) supports this statement