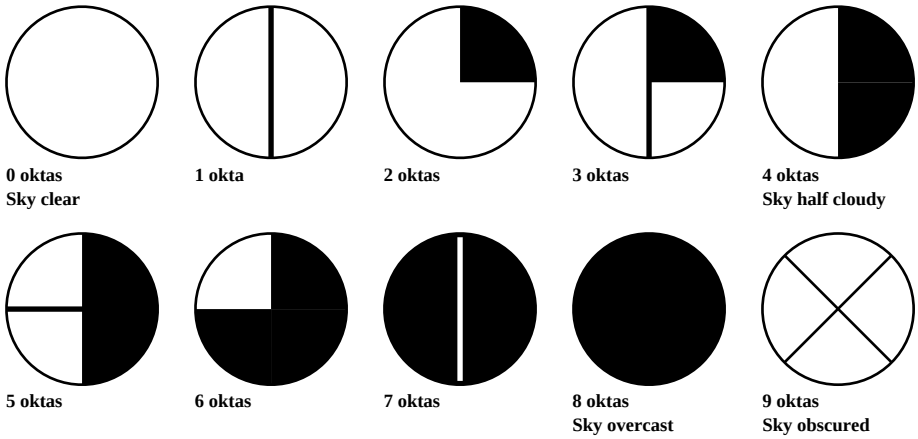
2.3 Homework

In meteorology, an okta is a unit of measurement used to describe the amount of cloud cover at any given location such as a weather station. Sky conditions are estimated in terms of how many eighths of the sky are covered in cloud, ranging from 0 octas (completely clear sky) through to 8 oktas (completely overcast). In addition a measurement of 9 oktas denotes a sky that is obscured by, for example, fog or a snow blizzard.



Question 1

At Heathrow, in London, the amount of cloud cover, in oktas, between the 1st and 7th of May 1987, is recorded as,

Data taken from Edexcel's Large Data Set

(i) Calculate the mean of the "Daily Mean Total Cloud" for the above data. Show your working.

At Cambourne in Cornwall the amount of cloud cover, in oktas, between the 1st and the 7th of May 1987, is

Date DD/MM/YYYY	Daily Mean Total Cloud (oktas)
01/05/1987	7
02/05/1987	3
03/05/1987	10
04/05/1987	5
05/05/1987	5
06/05/1987	1
07/05/1987	3

Data transcribed from Edexcel's Large Data Set
with one transcription error made

(ii) One of the measurements given for Cambourne is obviously incorrect.
State which measurement is incorrect and why.

(iii) To clean the data is to remove the obvious mistake,
Calculate the mean “Daily Mean Total Cloud” for Cambourne for the cleaned data.
Show your working.

(iv) Based on the data you have analysed, for that first week in May in 1987 which location had the most cloud ?