

2. Jasper is investigating the relationship between Daily Mean Pressure and Daily Mean Windspeed (Beaufort conversion) for Perth in 2015 using the data from the large data set.

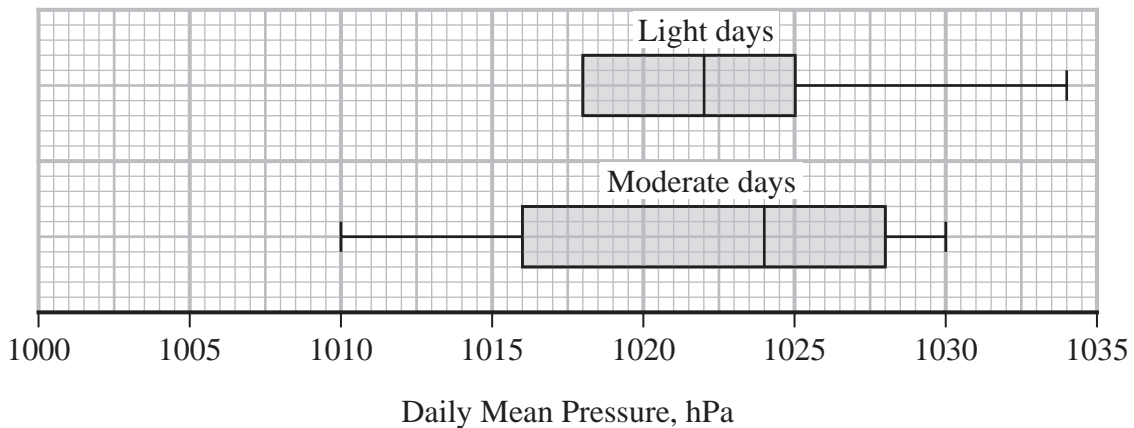
Treating the large data set for Perth in 2015 as the population, Jasper decides to use all the data available.

(a) Write down the name given to this method of data collection.

(1)

All of the Daily Mean Windspeed data for Perth in 2015 are classed as either “Light” or “Moderate”.

Jasper splits the data for Perth in 2015 into Light days and Moderate days and draws a box plot for each set of data, but omits the lower tail for Light days.



The smallest three values of Daily Mean Pressure for Light days for Perth in 2015 are 1007, 1009 and 1010 hPa.

An outlier in the first quartile is defined as any value more than $1.5 \times \text{IQR}$ below Q_1

(b) (i) Determine if there are any outliers in the first quartile of Daily Mean Pressure for Light days.

(2)

(ii) Hence, complete the box plot of Daily Mean Pressure for Light days.

(1)

The box plot for Light days is based on data for 161 days.

(c) Using your knowledge of the large data set, estimate the number of Moderate days with a Daily Mean Pressure of 1028 hPa and higher in the large data set for Perth in 2015.

(2)