

## 1.5) The large data set

## Worked example

Suggest a suitable sampling method:

- You, as the manager, wish to determine employee opinions on working in the supermarket. You want your sample to be representative of different age groups of employees.
- You wish to test the quality of oranges in your supermarket that arrive weekly.
- You wish to survey consumer opinion on a your newly-opened supermarket

## Your turn

Suggest a suitable sampling method:

- You wish to test lightbulbs produced by a factory in a daily batch

**Systematic sampling – the method of choosing items is simpler than simple random sampling (which would be time-consuming to find specific light bulbs). Sampling frame known.**

- You wish to survey consumer opinion on a new product your company have released

**Quota sampling or opportunity sampling. We do not have access to the sampling frame e.g. list of all residents in the country**

- You wish to determine students' favourite TV programmes in your school. That is fairly representative of each year group

**Stratified sampling. We have access to the sampling frame (list of all students). Each year group can be proportionately represented by each stratum in the sample.**

## Worked example

a) Describe the type of data represented by daily mean total cloud.

Alison is investigating daily total sunshine. She wants to select a sample of size 10 from the first 20 days in Camborne in May 1987. She uses the first two digits of the date as a sampling frame and generates ten random numbers between 1 and 20.

b) State the type of sample selected by Alison.

c) Explain why Alison's process might not generate a sample of size 5.

## Your turn

a) Describe the type of data represented by daily total rainfall.

a) **Continuous quantitative data**

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

b) State the type of sample selected by Alison.

b) **Simple random sample**

c) Explain why Alison's process might not generate a sample of size 5.

c) **Some of the data values are not available (n/a)**