

## Spreadsheet exercise 1.

First, do questions f and g, and then try to answer the rest of the questions.

- 1** At a school, children were randomly chosen and asked to nominate their favourite fruit. The following data was collected:

- a** What are the variables in this investigation?
- b** What is the dependent variable?
- c** What is the sample size?
- d** If we are trying to find out the favourite fruit of children in general, is the sample unbiased?
- e** If we are only interested in the favourite fruit of 368 children within the school, is the sample unbiased?
- f** What is the mode?
- g** Using a computer package, construct a vertical column graph to illustrate the data.

<i>Type of fruit</i>	<i>Frequency</i>
Apple	20
Banana	24
Grapes	3
Orange	11
Mandarin	10
Nectarine	7
Pear	2
Peach	3



## Spreadsheet exercise 2

Read the report. Questions a, b and c must be done using a spreadsheet. Do different charts to find those that better reflect the changes between years and to support your conclusions.

Warren read the following report from the local paper:

### OUR CHANGING POPULATION

*A spokesperson from the Statistics Bureau reported today that the number of persons per household has reached an all time low. Some of the reasons suggested for this decline were: women having fewer children and at a later stage in their lives because they want to establish their careers, more couples choosing not to have children at all, and it being more expensive than at any time previously to raise children.*



*In the past large families were common. It was cheaper to raise children as the 'necessities' of life were basic compared with the current times. Few married women had paid employment outside the home.*

*Whilst there have been fluctuations in family size over the last hundred years, such as the 'baby boom' following World War II, it is now seen as unlikely that we will ever return to the large families of the past.*

Warren decided to put this statement to the test in his local town of Boodernut. He applied for and received census data from the Statistics Bureau, a copy of which is given alongside.

- a Find the population sizes of the town in:
  - i 1935
  - ii 1960
  - iii 1985
- b Prepare a table of percentages for the town's population data (correct to 1 decimal place).
- c Using the data, write a brief discussion and conclusion which compares the changes in the household sizes over the 1935 to 1985 period.

Private household size of Boodernut			
Number of persons	Year		
	1935	1960	1985
1	9	8	69
2	68	177	184
3	73	162	248
4	109	374	162
5+	178	283	38
Totals			