

Data Handling



1. A class are asked how many items of fruit or vegetables they eat in a day. The responses are listed below.

2	3	4	1	0	5	4	6	4	2
3	0	4	1	1	2	4	5	5	2
1	3	1	2	5	6	0	2	4	5

- a) Draw a frequency table to show these results.
b) Use your frequency table to draw a bar graph.
c) It is recommended that you eat at least 5 items of fruit or vegetables each day.

Comment on how this applies to the results here.

- d) Is there anything to consider when collecting the data here?

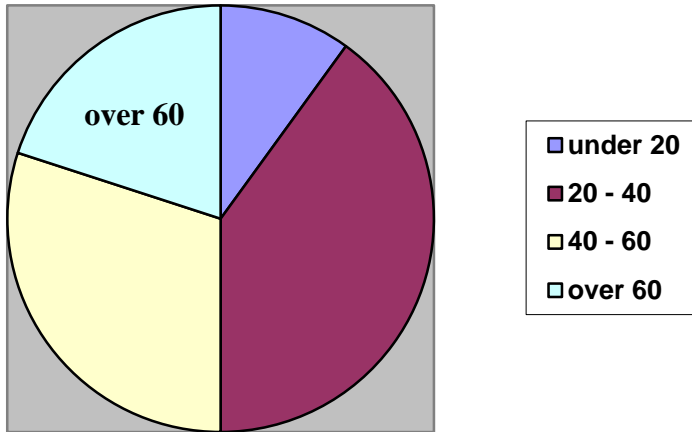
2. A survey on canteen was carried out with the pupils in the canteen one day.

The results were as follows.

	No. of Pupils
Enjoy all of the canteen meals	24
Enjoy most of the canteen meals	19
Enjoy some of the canteen meals	11
Do not like canteen meals	3

- a) Draw a pictograph to show the results.
b) Do you think that these results are **robust**?
Give a reason for your answer.

3. A film critic is keen to find out what age group goes to the cinema most often. He goes along on Saturday night and asks people in the queue what age they are. The results are shown in the Pie Chart below.



The critic thinks that this proves that most people who go to the cinema are in the 20 - 40 age group.

- a) Do you agree with his statement?
 b) Can you see any reasons why his results may be misleading?
4. a) The ages of a group of friends are 26, 32, 47, 28 and 37. Calculate the mean age.
 b) In another group Amy is 19 Tina is 32. Along with their friend Senga, their mean age is 30. What is Senga's age?



More Examples

1. An online poll is carried out to find out how many hours children spend on the internet each week. Results are shown below:



No. of Hours	No. of Children
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0 - 10	7
11 - 20	21
21 - 30	38
over 30	24

a) Draw a pie chart to illustrate these results.
 Show clearly the calculations to find the correct angle for each sector.

b) Do you think that these results are robust data?
 Give reasons for your answer.

2. Robust, vague, misleading and unprejudiced are all words that can be used when analysing data.

Write down what you believe is the meaning of each, giving an example if you wish.

3. A telephone poll is carried out to judge the goal of the season in Scotland.

Nominations are:

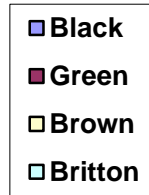
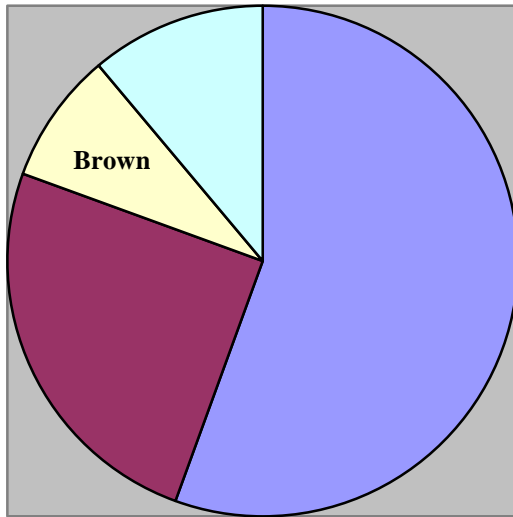
Black - Rangers, Green - Hearts,

Britton - Partick Thistle and

Brown - Greenock Morton

This Pie Chart displays the results.





Altogether 1 800 people responded to poll.

the

How many people voted for

- Green?
- Black?
- It was hope that this polling method would be the fairest way of choosing the best goal.

Can you see any source of bias in the sampling method used?

4. The test results for a group of pupils are shown below:

35 27 48 27 13 36

- Calculate the mean score.
- A new pupil joins the group and the mean result changes to 33.

What test result did the new pupil get?