

Lloyd has carried out a survey in his school.  
He surveyed 300 pupils.  
Below is a section from his questionnaire.

1. Which year group are you in? .....
2. Do you like the colours of the school uniform? .....
3. What is your favourite colour? .....

- (a) Afterwards, Lloyd thinks he should have given option boxes in questions 1 and 2. What could these option boxes be? [2]

Question 1:

.....

.....

Question 2:

.....

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Intermediate Numeracy Nov 2016 P1 Q3  
A survey was carried out to find how often teenagers buy DVDs.

The following two questions were asked in a questionnaire.

<i>Q1. Where do you live?</i>			
<i>Q2. How often do you buy DVDs?</i>			
<i>Never</i>	<i>1-10 times</i>	<i>10-15 times</i>	<i>More than 15 times</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- (a) For each question give **one** reason why it is **not** suitable. [2]

Q1. ....

Q2. ....

- (b) The survey was carried out by leaving copies of the questionnaire on the DVD shelves in a supermarket.

Give **one** criticism of how the survey was carried out. [1]

Intermediate Numeracy Summer 2019 P2 Q5a

A survey was carried out to find out how often people used the swimming pool in a sports centre.

The following two questions were asked in a questionnaire.

Q1. How far away from the sports centre do you live?  
 Q2. How often do you go swimming?

- (i) Give **one** reason why question 1 is a useful question to ask. [1]
- (ii) Explain why the answers to question 2 might be difficult to analyse. [1]
- (iii) A person answers that they go swimming.  
 Write a question that could be used to find out how long this person spends in the pool, on average, each time they go swimming.  
 You must give groups for collecting the data. [2]

Question:

Intermediate Numeracy Nov 2018 P1 Q8

Mrs Butler asked all her friends how many pairs of shoes they own.  
 Here are the results.

Number of pairs of shoes	1 to 6	7 to 12	13 to 18
Number of people	1	5	8

- (a) Which is the modal group? [1]

- (b) Mrs Butler says,  
 'Most people in Wales own more than 12 pairs of shoes.'  
 Is Mrs Butler correct in using this data to come to this general conclusion?  
 You must give a reason for your answer. [1]

Yes  No

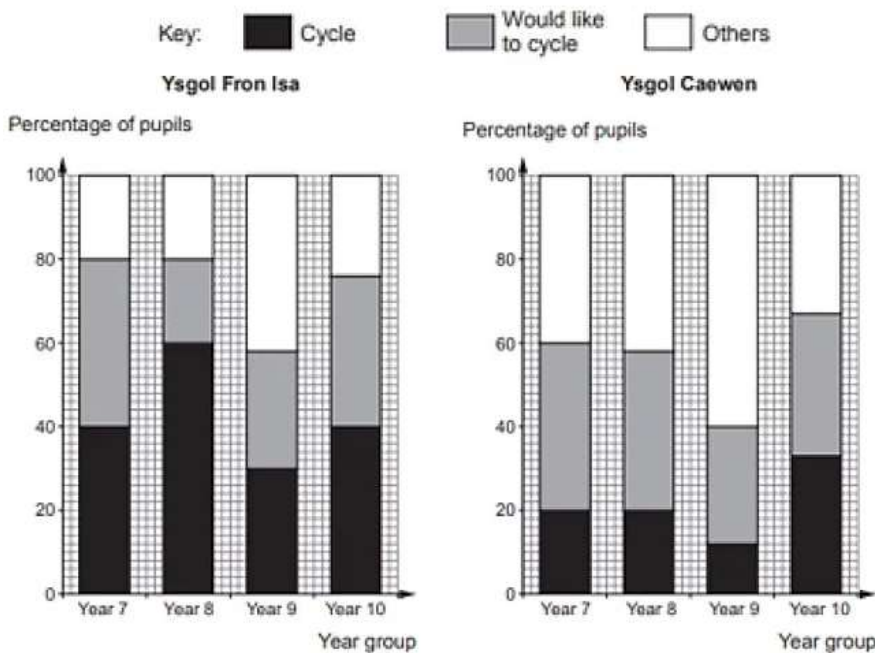
- (c) Write down **different groups** Mrs Butler could have chosen so that all of the data can be analysed more accurately. [2]

(a) Ysgol Fron Isa and Ysgol Caewen are two very different high schools. One school is large, and in a rural area. The other is a small school in a town. The town in which the small school is situated has many traffic-free cycle routes.

All of the pupils in Years 7 to 10 were surveyed in both of these schools. They were asked the following questions.

Do you cycle to school?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
If you answered 'no', would you like to cycle to school?	Yes <input type="checkbox"/>	No <input type="checkbox"/>

The results were displayed in graphs, as shown below.



- (i) Which school and year group has an approximately equal split between the 3 categories:
- pupils who cycle to school,
  - pupils who would like to cycle to school, and
  - other pupils?
- [1]

School: \_\_\_\_\_ Year Group: \_\_\_\_\_

- (ii) Circle either TRUE or FALSE for each of the following statements. [3]

There are definitely more pupils in Ysgol Fron Isa who cycle to school than in Ysgol Caewen.	TRUE	FALSE
Both schools have pupils in each year group with no interest in cycling to school.	TRUE	FALSE
The questions asked were biased.	TRUE	FALSE
Approximately 20% of the pupils surveyed in Ysgol Caewen cycle to school.	TRUE	FALSE
It is more likely that it is Ysgol Fron Isa that is the small school situated in a town.	TRUE	FALSE

Intermediate Numeracy Nov 2018 P1 Q12a

- (a) There is a queue of 96 people waiting to buy concert tickets.

Liam has 8 vouchers to hand out, offering 20% off ticket prices.

He has decided to use a systematic sampling method to select who receives these 8 vouchers.

Liam has randomly selected the 6th person in the queue to receive the first voucher.



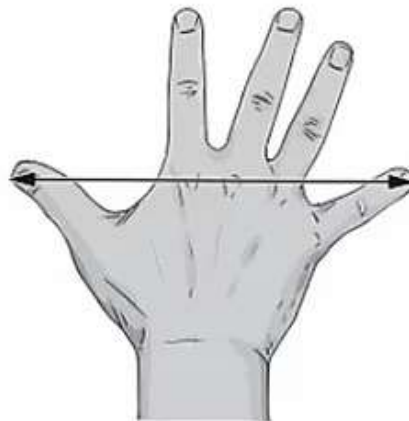
Use the table below to give the positions in the queue of the 8 people who would receive vouchers. [2]

Voucher	1	2	3	4	5	6	7	8
Position in the queue	6th	.....	.....	.....	.....	.....	.....	.....

Intermediate Numeracy Summer 2017 P2 Q15a

Simon plans to make gloves.

- (a) One morning, Simon decided to carry out a survey to find the mean hand span of people in Wales.



He decided to sample systematically.

He decided to sample from the first 240 people who pass him in the street during the morning.

He wanted to take 20 people's hand span measurements.

Explain how Simon could use systematic sampling to obtain 20 measurements. [1]