



## GCSE Foundation/Higher 21

*Handling Data*

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Questions



26 minutes



24 marks

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*Sampling and collecting*

**Q1.** A new road is planned.  
There are two possible routes, A and B.

200 people are asked which route they prefer.

(a) Name a suitable data collection method to use.

Answer .....

(1)

(b) Write a suitable question with a response section.

Question .....

.....

Response Section

(2)

(c) 27% of the 200 people prefer route A.

How many people is this?

.....

.....

.....

.....

Answer .....

(2)

(Total 5 marks)

**Q2.** Is money discrete or continuous?

Tick a box.

☐

Discrete

☐

Continuous

Give a reason for your answer.

.....

.....

(Total 1 mark)

**Q3.** A newspaper headline states:

Only 80% of teenagers think  
Winston Churchill was a real person.

- (a) Show that the ratio of the number of teenagers who think Winston Churchill was a real person to those who do not is 4 : 1

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(1)

- (b) Hana claims:

GCSE History students are more likely than other teenagers  
to know that Winston Churchill was a real person

Design a data collection sheet for Hana to investigate her claim.

(2)

- (c) The ratio of GCSE History students who think Winston Churchill was a real person to those who do not is 17 : 3

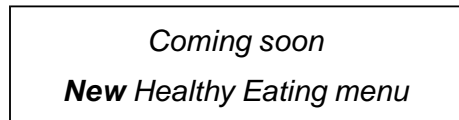
Is Hana's claim true?  
Show how you decide.

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(2)  
(Total 5 marks)

- Q4.** This poster is put up in a school dinner hall.



The headteacher thinks the number of students who eat school dinners will increase by 25%.

- (a) Design an observation sheet the headteacher can use to see if she is right.

(2)

- (b) The number of students who eat school dinners increases from 78 to 91.

Is the headteacher correct?  
Show clearly how you decide.

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(3)  
(Total 5 marks)

**Q5.** A survey of the adults in Oldtown is carried out to find the age at which they hope to retire.

(a) Here is one of the questions.

Question :	How old are you?	
Response :		
	Under 30	<input type="checkbox"/>
	30 – 50	<input type="checkbox"/>
	60+	<input type="checkbox"/>

(i) Write down **one** criticism of the question.

.....  
 .....

(1)

(ii) Write down **one** criticism of the response section.

.....  
 .....

(1)

(b) (i) The survey found that  $\frac{3}{4}$  of the adults hope to retire before they are 60. A newspaper states

6000 people in Oldtown hope to retire before they are 60
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Use all of this information to work out the adult population in Oldtown.

.....  
 .....

Answer .....

(3)

(ii) Explain why the answer to part (b)(i) might **not** be true.

.....  
 .....

Answer .....

(1)

(Total 6 marks)

- Q6.** Joe carries out a survey about fast foods.  
This is one of his questions.

Do you agree that eating fast foods is unhealthy?

This question is **not** suitable.

Rewrite the question so that it is suitable.  
Include response boxes.

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**(Total 2 marks)**

