Questionnaires and biased questions

Grade 3 | Worked solutions

GCSE Statistics topic practice

1 Here are two questions about homework.

A	Do you agree that homework is a waste of time?
B	How many hours of homework did you do last week?

a. Write down the letter of the question that is biased. (1)

b. Give a reason for your answer to part (a). (1)

c. Rewrite the biased question so that it is not biased. (1)

(3 marks)

a)

A

b)

It is a leading question

It pushes people to agree

c) do not give an opinion in the question

What do you think about homework?

Useful, Not useful, Not sure

a) A b) leading question c) see question above

2 Kofi wants to find out how much time people spend on their phones. He writes this question.

How long do you spend on your phone?

a. Write down two things that are wrong with Kofi's question. (2)

b. Write a better question for Kofi to use. Include some response boxes. (2)

(4 marks)

a)

There is no time frame, such as each day

There are no response boxes or units

b) add a time frame, boxes with no gaps or overlaps

How many hours did you spend

on your phone yesterday?

Less than 1 hour

1 to 2 hours

More than 2 and up to 4 hours

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More than 4 hours

a) no time frame, no boxes b) see question above

3 Dan writes a questionnaire about a sports centre. Here are two of his questions.

Question 1 Do you agree that the new sports centre is brilliant?
☐ Yes ☐ No

Question 2 How many times do you visit the sports centre?
☐ 1 to 3 ☐ 3 to 5 ☐ 5 to 7

a. Write down one thing that is wrong with Question 1. (1)

b. Write down two things that are wrong with the response boxes for Question 2. (2)

c. Write a better question for Question 2. Include some response boxes. (2)

(5 marks)

a)

It is a leading question

It pushes people to answer Yes

b)

The boxes overlap

3 and 5 are each in two boxes

There is no box for 0 or for more than 7

c) add a time frame, boxes with no gaps or overlaps

How many times did you visit

the sports centre last month?

0, 1 to 2, 3 to 4, 5 to 6, 7 or more

a) leading b) overlap, no 0 box c) see question above

4 Mrs Okafor is going to send a questionnaire to the parents of 400 pupils. Before she does this, she gives the questionnaire to 10 parents to try out.

a. Write down the name for this small trial of the questionnaire. (1)

b. Give one reason why it is a good idea to try out a questionnaire first. (1)

c. One question is "How much do you earn each year?"
Give one reason why some parents may not answer this question. (1)

d. Parents do not have to write their name on the questionnaire.
Give one advantage of this. (1)

(4 marks)

a)

A pilot survey

b)

To check that the questions are clear

Any problems can be fixed before it is sent out

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c)

It is a personal question

Some parents will not want to say

d)

Parents are more likely to answer honestly

a) pilot b) find problems c) personal d) honest answers

5 A council wants to find out what people think about its bin collections. It is going to post a questionnaire to every home in the town.

a. Give one advantage of posting a questionnaire instead of interviewing people face to face. (1)

b. Give one disadvantage of posting a questionnaire. (1)

c. Here is one question from the questionnaire.

Bin collections are too rare and too early in the morning, don't you agree?

☐ Yes ☐ No

Write down two things that are wrong with this question. (2)

(4 marks)

a)

It is cheaper than visiting every home

b)

Many people will not send it back

c)

It is a leading question

It pushes people to answer Yes

It asks about two things at once

how often and how early

a) cheaper b) low response c) leading, two in one

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