Primary and secondary data

Grade 2 | Worked solutions

GCSE Statistics topic practice

1 Three pupils each collect some data for a project.

Pupil	How the data is collected
Zara	She counts the cars that pass her house in one hour.
Ben	He copies a football league table from a website.
Mia	She measures the heights of the pupils in her class.

For each pupil, write down whether the data is primary data or secondary data. (3 marks)

primary data is data you collect yourself

Zara has primary data

Mia has primary data

secondary data was collected by someone else

Ben has secondary data

Zara primary, Ben secondary, Mia primary

2 Kwame wants to find out how the pupils at his school travel to school. He thinks of two ways to get data.

Method A: give a questionnaire to pupils at his school.
Method B: use a table on a government website showing how pupils in England travel to school.

a. Write down the method that gives primary data. (1)

b. Give one advantage of using secondary data. (1)

c. Give one reason why the data from Method B may not be suitable for Kwame. (1) (3 marks)

a) primary data is data you collect yourself

Method A

b)

It has already been collected

so it is quicker and cheaper to get

c)

It is about pupils in all of England

His school may be different

a) Method A b) quicker to get c) not about his school

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3 Mrs Okafor owns a cafe. She wants to find out which of three new cakes her customers like best. She decides to collect primary data.

a. Describe one way Mrs Okafor could collect primary data. (1)

b. Give one advantage of using primary data. (1)

c. Give two disadvantages of collecting primary data. (2)

(4 marks)

a) she must collect the data herself

Ask customers to taste each cake and say which one they like best

b)

She knows how the data was collected so she knows it is reliable

c)

It takes a long time to collect

It can cost money to collect

a) ask her customers b) reliable c) slow, costs money

4 Leo is writing a report about how much rain falls in Bristol, the city where he lives. He finds this table in an old geography book.

Month in 2009	June	July	August
Rainfall in Manchester (mm)	67	112	85

a. Is this primary data or secondary data for Leo? Give a reason for your answer. (2)

b. Give two reasons why this data may not be suitable for Leo's report. (2)

(4 marks)

a)

Secondary data

Leo did not collect it himself

It was collected by someone else

b)

It is for Manchester, not Bristol

It is from 2009, so it is out of date

a) secondary b) wrong city, out of date

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5 Dan wants to know how long teenagers spend online each day. He finds this table on the website of a company that sells mobile phones.

Year	2016	2017	2018
Mean time online each day (hours)	3.1	3.9	4.6

The website says the company asked 20 of its own customers each year.

a. Write down whether this is primary data or secondary data for Dan. (1)

b. Give two reasons why this data may not be reliable. (2)

c. Dan decides to collect his own data from the 180 pupils in his year group instead. Give one advantage and one disadvantage of doing this. (2)

(5 marks)

a) Dan did not collect it

Secondary data

b)

Only 20 people were asked each year

The company sells phones, so it may be biased

c) advantage

The data will be up to date

and he knows how it was collected

disadvantage

It takes a long time to ask 180 pupils

a) secondary b) small sample, biased c) up to date, slow

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