

SCORE

Data & Measurement

With Classified
answer book

8

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1-Types Of Data

1 Say whether the following data is qualitative, discrete quantitative or continuous quantitative.

- a) The number of words in your favourite song.
- b) The time it takes Matt to walk to school.
- c) Your favourite food.
- d) The nationalities of the people in a park.
- e) The numbers of pets in 20 households.
- f) The lengths of 30 worms.
- g) The sizes of the crowds at 10 rugby matches.
- h) The distances of planets from the Sun.
 - i) The heights of 100 tomato plants.
 - j) The hair colours of 50 people.

2. For each investigation below Say whether the data will be primary or secondary data.:

a Nikita wants to know what the girls in her class think about school dinners.

b Dan wants to find the most common colour of car passing his house in a 30-minute interval.

c Anne wants to compare the daily rainfall in London and Manchester last August.

d Rohan wants to test his theory that the boys in his class can throw a ball further than the girls.

e Jim wants to find out how the temperature in his garden at 10 a.m. each morning compares with the temperature recorded by the Met Office for his local area.

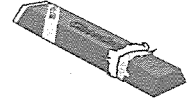
3. Jon wants to test whether a six-sided dice has an equal chance of landing on each of its sides. Explain how he could collect data for the test. Will his data be primary or secondary data?

4. Say whether the following data is qualitative, discrete quantitative or continuous quantitative.

a) The hometowns of 100 people.

b) The weights of the bags of potatoes on sale in a greengrocer's.

5. Gemma thinks there is a link between the average number of chocolate bars eaten each week by pupils in her class and how fast they can run 100 metres.



- a) Describe two sets of data Gemma should collect to investigate this link.
- b) Describe suitable methods for collecting the data.
- c) Say whether each set of data is qualitative, discrete quantitative or continuous quantitative.
- d) Say whether each set of data is primary data or secondary data.

6. Blair wants to find out what 12 people think about his favourite TV show, 'The One Direction is Cumbria'. He first asks 6 people, "How much do you like 'The One Direction is Cumbria'?", and notes down their responses. He then asks another 6 people the same question, and asks them to give their response as a mark out of 10. His results are shown on the right.

'It's alright.' 'It's brilliant!'

'OMG, I love it! Cuthbert's so hot!'

'It's really annoying, I hate it.'

'I shouldn't like it, but I do.'

'I liked the first episode, but after that it all just seemed really fake.'

'I don't like it any more.'

2	4	10	8	7	9
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(i) Does his first set of results consist of qualitative, discrete quantitative or continuous quantitative data?

(ii) Does his second set of results consist of qualitative, discrete quantitative or continuous quantitative data?

7 Five people collect some data.

Jackson prepares a questionnaire and gives it out to a sample of people.

Martha measures the length of some worms.

Luca collects some data about planets from a website.

Amol interviews some people to find out their opinions about a new road.

Rita collects some data about weather from a newspaper.

Some of their data is primary data and some is secondary data.

Complete the table by writing the name of the person in the correct column.

Primary data	Secondary data

8. Define the following terms:
Continuous data:

Discrete data:

9. Define the following terms
Quantitative data:

Qualitative data:

10. Hasok visits a car museum.

He records some information about each car he sees. Tick to show if each variable is non-numerical, discrete or continuous.

	Non-numerical	Discrete	Continuous
Colour of the car	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Top speed (km/h)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Number of doors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mass (kg)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. Data is collected on the following areas. For each, state whether the data is continuous, discrete, quantitative, or qualitative. The data may fit more than one of these categories.

- | | |
|--|------------------------------------|
| Favourite colours in a class | ... Discrete and qualitative... |
| Time taken to run 100m (to the nearest second) | ... Discrete and quantitative... |
| Duration of journey to school | ... Continuous and quantitative... |
| Which subjects were chosen as an option | ... Discrete and qualitative... |
| Number of students in the school each year | ... Discrete and quantitative... |
| Cost of the journey to school | ... Continuous and qualitative... |