GCSE MATHEMATICS
Types of data

AQA These questions have been taken or modified from previous AQA GCSE Mathematics Papers.

Instructions
- Use black ink or black ball-point pen. Draw diagrams in pencil.
- Answer **all** questions.
- You must answer the questions in the spaces provided.
- If your calculator does not have a π button, take the value of π to be 3.14 unless another value is given in the question.

Information
- The marks for questions are shown in brackets.
- The quality of your written communication is specifically assessed in questions that are indicated with an asterisk (*).

Advice
- Read each question carefully before you start to answer it.
- In all calculations, show clearly how you work out your answer.
- Use the number of marks for the question as a guide to the amount of time you need to spend.
- Look at previous parts of the question, e.g. a), b), c) i) as there may be information there you need to answer later parts.
- Check your answer is realistic and appropriate.
- For calculator decimal numbers always write your full calculator display in the working out area and then, if you need to, round the answer on the answer line.

1   Decide whether each of these sets of data is discrete or continuous.

Tick the correct box.

1 (a)   The heights of people.

☐ Discrete   ☐ Continuous

(1 mark)

1 (b)   The number of coins in a bag.

☐ Discrete   ☐ Continuous

(1 mark)

1 (c)   The weights of bicycles.

☐ Discrete   ☐ Continuous

(1 mark)

1 (d)   The shoe sizes of women.

☐ Discrete   ☐ Continuous

(1 mark)

2   A grocer has 100 boxes of strawberries.

He weighs 10 of the boxes.

Which **three** words describe the data he collects?
Circle your answers.

continuous   discrete   sample   primary   secondary

(2 marks)

3   John collects stamps from all over the world.

Decide whether each of the following variables is discrete, continuous or qualitative.
In each case, circle the correct word.

3 (a)   The length of a stamp.

[1 mark]

Discrete   Continuous   Qualitative

3 (b)   The number of stamps in his collection.

[1 mark]

Discrete   Continuous   Qualitative

3 (c)   The country the stamp is from.

[1 mark]

Discrete   Continuous   Qualitative

4   Amina asks 50 people,

"What is your favourite pet?
Choose from cat, dog, rabbit or other."

4 (a)   Which **two** words describe the type of data she collects from each person?
Circle your answers.

qualitative   continuous   primary   secondary

(1 mark)

4 (b)   Which **two** diagrams could she use to represent the data?
Circle your answers.

scatter graph   pie chart   bar chart   stem-and-leaf

(1 mark)

5 (a) Match each data collection method to **one** set of data.

[2 marks]

Survey		The colours of cars passing a school at lunchtime

Controlled experiment		The number of people in each house of a street

Observation		The number of vehicles crossing a bridge in 2014

Data logging		The reaction times of girls and boys

5 (b) Jess wants to know the number of people who live in her street.
She carries out a survey.

Which **two** words describe the data she collects?
Circle your answers.

[2 marks]

Primary   Secondary   Discrete   Continuous

6 Is money discrete or continuous?
Tick a box.

☐ Discrete   ☐ Continuous

Give a reason for your answer.

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(1 mark)