

Section I — Multiple choice

1 A step in a statistical inquiry that interprets data and transforms it into information.

- A Analysing B Collecting C Displaying D Organising
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2 Which one of these is an example of categorical data?

- A The age of a student. B The length of a playground.
C The colour of a wall. D The capacity of a swimming pool.
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3 Source of data obtained by interviewing people.

- A Primary B Observing C Secondary D Survey
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4 The type of data that uses words and not numbers.

- A Quantitative B Continuous C Discrete D Categorical
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5 'The number of people on your contact list'. What is the classification for this data?

- A Categorical B Continuous C Discrete D Text
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6 Which one of the following data sets is not discrete?

- A Age in years. B Mass of a person.
C Number of subjects studied. D Shoe size of a person.
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7 Which of the following is an example of selecting a systematic sample?

- A Five names from a phone book. B Five people who entered the supermarket.
C Five people living in Parramatta. D every 5th name from a class list.
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8 Which of the following is an example of a random sample?

- A Names of three children drawn from a container. B First three children wearing blue clothing.
C Three children with brown eyes. D Three children whose mother works.
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9 Selecting every 10th person from an alphabetical list. This is an example of a:

- A census B random sample C stratified sample D systematic sample
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Section II — Short answer

1 Classify the following events as a census or a sample.

- a Total number of students completing the Higher School Certificate.
 - b Electing the best player award when nine out of twelve players voted.
 - c Surveying every second person entering the shopping centre.
 - d Recording the student details of every student in the school.
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2 Classify the data from these situations as quantitative or categorical.

- a The colour of each car travelling on the motorway.
 - b Samuel's school 100 m record.
 - c The number of goals scored in a netball match.
 - d The brand name of a mobile phone.
 - e Laura's favourite song on the CD.
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3 Classify the following quantitative data as discrete or continuous.

- a The age of the people living in your community.
 - b The quantity of water consumed by the average person each day.
 - c The rating (1 to 10) given to the latest movie.
 - d The height of a light pole.
 - e The number of cattle on a farm.
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4 State whether the sample is random, stratified or systematic.

- a Drawing the winning ticket in a raffle.
 - b Sorting the names of students into alphabetical order and choosing every fifth student.
 - c Grouping people according to the decade they were born. Selecting an equal number from each group.
 - d Testing every 100th DVD player on the production line.
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5 A survey was conducted on a person's satisfaction level: like, unsure, dislike. Describe the type of data that would result from this survey.

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Topic Test 4 Statistics and society, data collection and sampling

Worked solutions

Section 1	Solution	Answer
1	Analysing	A
2	The colour the wall (word or label)	C
3	Primary source	A
4	Categorical	D
5	Discrete (exact number)	C
6	Mass of a person (continuous)	B
7	Every 5 th name from a class list (systematic sample)	D
8	Names of three children drawn from a container (random sample)	A
9	systematic sample	D

Section II	Solution
1a	Census
1b	Sample
1c	Sample
1d	Census
2a	Categorical
2b	Quantitative
2c	Quantitative
2d	Categorical
2e	Categorical
3a	Discrete
3b	Continuous
3c	Discrete
3d	Continuous
3e	Discrete
4a	Random
4b	Systematic
4c	Stratified
4d	Systematic
5	Categorical data. It uses words not numbers.