

Chapter 2 Test

Multiple Choice

For each question, select the best answer.

- Which is a secondary data source?
 - measuring the amount of rainfall this month
 - asking people in your community who they plan to vote for in the next municipal election
 - surveying your classmates to find out what their favourite pastime is
 - using data collected by a professional polling firm
- Carmelo wants to know who is likely to be elected student council president. Which is the population for this survey?
 - all the students in Carmelo's class
 - all the students in Carmelo's grade
 - all the students at Carmelo's school
 - everyone in Carmelo's community
- Interpolation is
 - the process of estimating a value outside the range of the data
 - the process of estimating a value between two measurements in a set of data
 - drawing a conclusion based on reasoning and the data
 - a variable that affects the value of another variable
- number of courses and amount of homework
- exchange rate between the Canadian and U.S. dollars and the number of Canadians who vacation in the United States
- The coaches of the junior hockey league wish to survey a representative sample of the players.
 - What is the population?
 - Describe how to select a simple random sample of players.
 - How could you select a stratified random sample of players?
 - How could you select a non-random sample?
- Make a scatter plot of the data in the table. Draw a line or curve of best fit. Explain your choice.

| | | | | | | | |
|----------|---|---|---|---|---|---|---|
| <i>x</i> | 1 | 2 | 3 | 6 | 9 | 5 | 6 |
| <i>y</i> | 9 | 5 | 2 | 1 | 1 | 2 | 2 |

Extend

- This table shows the population of a settlement from 1805 to 1875.

| Year | Population |
|------|------------|
| 1805 | 84 |
| 1815 | 89 |
| 1825 | 86 |
| 1835 | 93 |
| 1845 | 96 |
| 1855 | 107 |
| 1865 | 110 |
| 1875 | 109 |

Short Response

- Write a hypothesis about the relationship between each pair of variables. Then, state the opposite of each hypothesis.
 - mass of backpack and number of visits to a chiropractor
 - number of courses and amount of homework
 - exchange rate between the Canadian and U.S. dollars and the number of Canadians who vacation in the United States
- The coaches of the junior hockey league wish to survey a representative sample of the players.
 - What is the population?
 - Describe the trend in the population.
 - Identify any outliers.
 - Draw a line or curve of best fit.
 - Estimate the population in 1850.

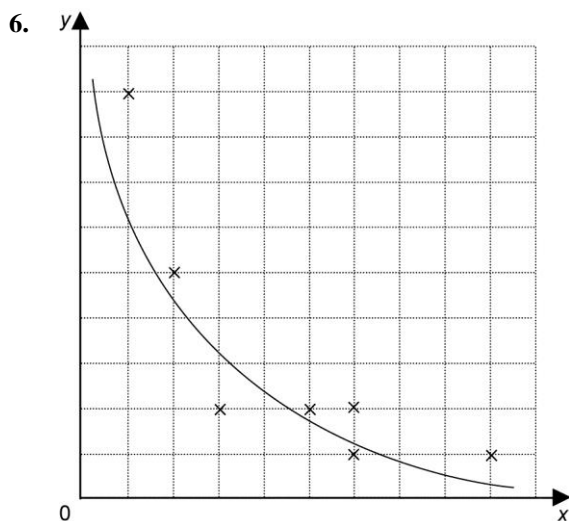
Name: _____

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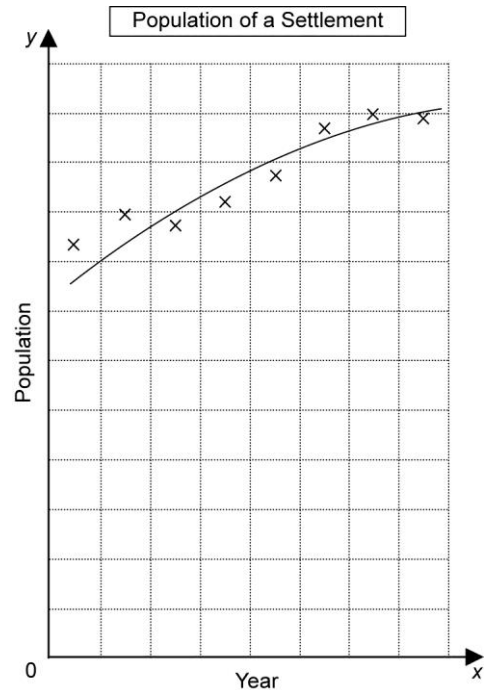
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1. D
2. C
3. B
4. a) People with heavy backpacks make more frequent visits to the chiropractor.
People with heavy backpacks do not make more frequent visits to the chiropractor.
- b) If you take a greater number of courses, you will have more homework.
If you take a greater number of courses, you will not have more homework.
- c) When the exchange rate is favourable, the number of Canadians who vacation in the United States increases.
When the exchange rate is favourable, the number of Canadians who vacation in the United States does not increase.
5. a) all the players in the league
- b) number all the players using consecutive numbers; use a calculator or other source of random numbers to select players
- c) randomly select three players from each team
- d) survey all the players on one team



The data appear to lie in a curve, so I drew a curve of best fit.

7. a)



- b) The population remained fairly stable over the time period shown. There was a small rate of growth.
- c) There are no outliers.
- e) about 102