

Data Literacy Questionnaire

Please read through each question and answer to the best of your ability.

What is the definition of data?

- A) Data is exclusively qualitative, involving descriptive information only.
- B) Data is exclusively quantitative, involving numerical variables only.
- C) Data is information that can be made of either qualitative or quantitative variables, and if it can be counted or measured, these measurements are considered data.
- D) Data is synonymous with statistics, primarily dealing with the analysis of percentages.

What is the primary purpose of visualization as it relates to data?

- A) To create entertaining and visually appealing images.
- B) To convey information solely through text and numbers.
- C) To enable analysis, discovery, and exploration through visual representation of data.
- D) To focus solely on quantitative data without considering qualitative aspects.

Charts, Data Visualization, and Visualization are based on a grammar, a vocabulary of symbols, and plenty of conventions. We need to practice and understand how this grammar works in order to read a chart well and understand what is being communicated.

- A) True
- B) False

What does the term "encoding data" refer to in the context of charts or visualizations?

- A) It pertains to the encryption of data for security purposes.
- B) It deals exclusively with the analysis of numerical data in visualizations.
- C) It refers to the process of creating backup copies of data.
- D) It focuses on the content itself – how the data is represented is often with shapes or symbols such as length or height in a bar graph.

What principles contribute to good visualization, ensuring its truthfulness?

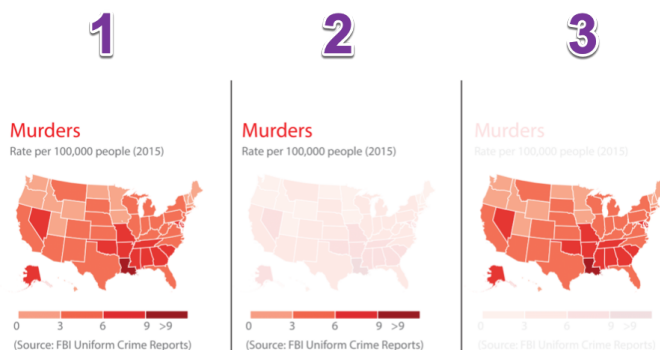
- A) Embracing deception for dramatic effect, truthfulness is not important for good visualization.
- B) Relying on biased research to convey a specific narrative.
- C) Avoiding deception and being based on thorough and honest research.
- D) Prioritizing visually appealing elements over accuracy.

What does the term "chart scaffolding" mean in the context of reading a chart effectively?

- A) It refers to the visual elements within the chart, such as bars and lines.
- B) It pertains to the process of constructing a physical chart.
- C) It includes the content that provides context to the graph, such as text, titles, subtitles, scales, legends, and the name of the source.
- D) It exclusively involves the graphical representations of data.

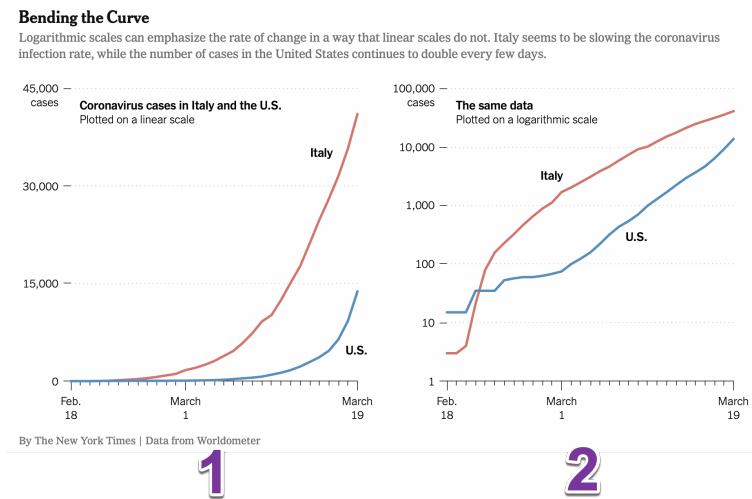
Review the chart below, and notice how it is divided into three sections labeled 1, 2, and 3. Each section represents something distinct about the chart. Which section represents the chart scaffolding?

- A) The label 1 is the chart scaffolding
- B) The label 2 is the chart scaffolding
- C) The label 3 is the chart scaffolding
- D) None of these is the chart scaffolding



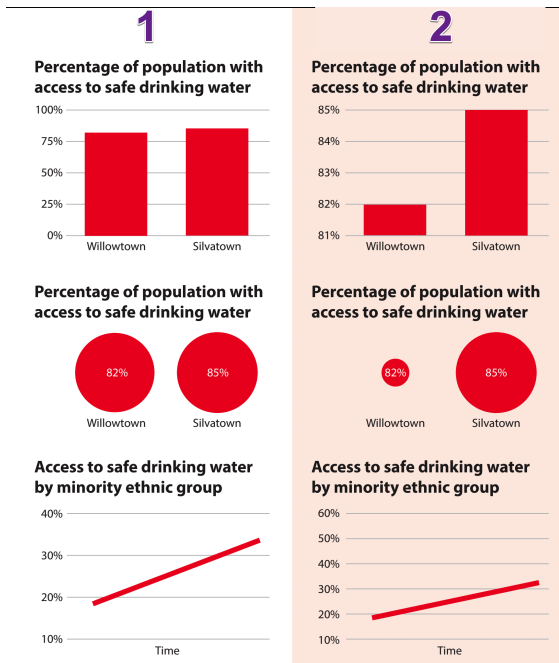
There are two charts below labeled 1 and 2. They are both the same data set, they are both visualizing the same trend. However one of these is not truthful, meaning that it's poorly designed, it suggests misleading patterns, and it is not being counted correctly. Which of these charts is misleading and is not being counted correctly?

- A) The chart labeled 1 is misleading and is not being counted correctly
- B) The chart labeled 2 are misleading and is not being counted correctly
- C) Both of these are misleading
- D) Neither of these charts is misleading



There are two sets of charts below, they are grouped together and labeled as 1 and 2. One group has been altered and represents an example of how charts can be designed deceptively. Which of these charts is misleading?

- A) The charts labeled 1 are misleading
- B) The charts labeled 2 are misleading
- C) Both of these groups of charts are misleading
- D) Neither of these groups of charts are misleading



Use the same charts from the last question (sets of graphs labeled 'Percentage of population with access to safe drinking water'). One group has been altered and represents an example of how charts can be designed deceptively. Write a response that (1) states which of these is misleading and (2) explain why it is not truthful.