Population versus sample

6 questions | 12 marks

Equivalent correct methods earn the corresponding marks.

1. Seventy-five of 3,200 registered library users are surveyed. Identify population and sample. [2 marks]

Use the intended group and observed subset.

Answer: Population: 3,200 users; sample: 75 surveyed users.

2. Those 75 users have median 3 visits monthly. Is 3 a parameter? [2 marks]

It describes only the measured sample.

Answer: No, it is a sample statistic.

3. A teacher asks all 28 class members for shoe size; 23 respond. Is this complete? [2 marks]

Attempting a census does not remove non-response.

Answer: No; five responses are missing.

4. Give a reason to census a 12-person team for equipment sizes. [2 marks]

A small accessible group can make a census practical.

Answer: All are easily contacted and each response affects ordering.

5. Online ticket buyers are surveyed to describe all concert attendees. Identify a frame concern. [2 marks]

The frame may not cover the target population.

Answer: Venue and other-seller buyers may be excluded.

6. Why can a census of self-reported income still mislead? [2 marks]

Complete coverage does not ensure accurate measurement.

Answer: Responses may be inaccurate or inconsistently defined.