

Test 24 (Lessons 47–48): Introduction to Statistics, Sampling Methods, and Bias

For problems 1–3, use the scenario below.

A new city manager in Indianapolis is trying to improve the public transportation system. She is especially interested in how long people have to wait for the Blue Line Express bus. She has observers at ten randomly selected stops along the route who record the wait time (in minutes) for the first bus and the number of people waiting at the stop when the bus arrives.

- 1) Name the population and the sample.
- 2) Name the type of study and the probability sampling method.
- 3) Identify the variable(s) and categorize them as quantitative or categorical.

For problems 4–5, use the scenario below.

To gather feedback on a new product, a large corporation surveyed the first twenty customers immediately following service calls that lasted five minutes or less. The survey question was, “How satisfied are you with the superb customer service you just received?”

- 4) Identify possible flaws in the study.
- 5) Rewrite the survey question to remove bias.

