1. Fill in the blank: If a test is statistically _____, the results are less likely to be due to random chance and more likely to be due to a real difference between the groups being compared. 1 / 1 point

- (●) significant
- ( ) precise
- ( ) connected
- ( ) repeatable

Correct

2. A government agency operates an array of weather sensors. The sensors use the electrical resistance of a piece of platinum (Pt) to detect temperature. The raw data from these sensors is in Pt ohms. This data is sent to a database, where it is then encoded in Celsius. One of the sensors was replaced with a unit whose raw data output is pre-converted to degrees Celsius. When the output was sent to the database, the Pt ohms to degrees Celsius formula was applied a second time, causing confusion around the readings from this sensor. What data integrity problem does this scenario describe? 1 point

- ( ) Replication
- (●) Transfer
- ( ) Security vulnerability
- ( ) Manipulation

Incorrect
Not quite! In this case, the data was transferred successfully. The problem was due to how the data was manipulated once it got to the database. Review the video about data integrity.

3. In a survey about a new smartphone app, 65% of respondents report they would recommend the app to others. The margin of error for the survey is 3%. Based on that margin of error, what range reflects the population's true response? 1 / 1 point

- ○ 65-68%
- ○ 68-71%
- ○ 60-63%
- ◉ 62-68%

✓ **Correct**

4. A high school principal estimates the total number of students who will attend an upcoming event. Assuming that the older students are unlikely to attend, the principal decides to only survey first- and second-year students. What is likely to result? 1 / 1 point

- ○ Random sampling
- ○ Unbiased sampling
- ◉ Sampling bias
- ○ Geographically limited sampling

✓ **Correct**

5. Fill in the blank: To determine whether a survey or experiment has meaningful _____, a data team uses hypothesis testing. 1 / 1 point

- ○ process steps

5. Fill in the blank: To determine whether a survey or experiment has meaningful _____, a data team uses hypothesis testing. 1 / 1 point

- process steps
- action items
- significance
- results (selected)

Correct

6. A data analytics team in the food service industry wants to calculate the margin of error for a study about food packaging. They know the population size and confidence level. What must they also know in order to accurately calculate margin of error? 1 / 1 point

- Testing methodology
- Distribution
- Sample size (selected)
- Correlation

Correct

7. As an analyst downloads a dataset from the internet to their local drive, their internet connection goes down. This interrupts the download, causing them to have an incomplete copy of the dataset on their computer. What data integrity problem does this scenario describe? 1 / 1 point

- Cleaning
- Replication

7. As an analyst downloads a dataset from the internet to their local drive, their internet connection goes down. This interrupts the download, causing them to have an incomplete copy of the dataset on their computer. What data integrity problem does this scenario describe? **1 / 1 point**

- ○ Cleaning
- ○ Replication
- ○ Manipulation
- ◉ Transfer

Correct

8. Which of the following statements accurately describe sample size, population, and confidence level? Select all that apply. **1 / 1 point**

- ☑ Using sample size makes it possible to get enough information from a small group within a population to draw conclusions about the whole population.

Correct

- ☑ For effective outcomes, a data professional aims for a high confidence level in their sample.

Correct

- ☑ The goal of random sampling is to ensure every possible type of the sample has an equal chance of being chosen.

Correct

- ☐ A confidence level of 75% is considered ideal by most industries.