✓ **Congratulations! You passed!**

Grade received 91%   **To pass** 80% or higher

[**Go to next item**]

The following questions are designed to help you assess your comfort level with general data analytics principles and data types. Use them to self-reflect and make your own decisions about the foundational knowledge you need to be successful in this course.

1. What is data science?   `1 / 1 point`

○ A process used to solve complex problems in a user-centric way

○ A tool for organizing data elements and how they relate to one another

○ The collection, transformation, and organization of data in order to draw conclusions, make predictions, and drive informed decision-making

⦿ A field of study that uses raw data to create new ways of modeling and understanding the unknown

> ✓ **Correct**
> Data science is a field of study that uses raw data to create new ways of modeling and understanding the unknown.

2. What is the key difference between qualitative and quantitative data?   `0 / 1 point`

○ Qualitative data is about the quality of a product or service; quantitative data is about how much of that product or service is available in the marketplace.

○ Qualitative data describes the kind of data being analyzed; quantitative data describes how much data is being analyzed.

○ Qualitative data measures qualities and characteristics; quantitative data measures numerical facts.

⦿ Qualitative data is subjective; quantitative data is specific.

> ✗ **Incorrect**
> Qualitative data measures qualities and characteristics; quantitative data measures numerical facts. To learn about qualitative and quantitative data, enroll in the Google Data Analytics Certificate.

3. Which of the following statements accurately describe wide and long data? Select all that apply.   `1 / 1 point`

☐ Wide data subjects can have multiple rows that hold the values of subject attributes.

☐ Long data subjects can have data in multiple columns.

☑ Wide data subjects can have data in multiple columns.

> ✓ **Correct**
> Wide data subjects can have data in multiple columns. Long data subjects can have multiple rows that hold the values of subject attributes.

☑ Long data subjects can have multiple rows that hold the values of subject attributes.

> ✓ **Correct**
> Wide data subjects can have data in multiple columns. Long data subjects can have multiple rows that hold the values of subject attributes.

4. Structured data is likely to be found in which of the following formats? Select all that apply.   `0.5 / 1 point`

☑ Audio file

> ✗ **This should not be selected**
> Structured data is organized in a certain format such as rows and columns. It is likely to be found in a table or spreadsheet. To learn about structured data, enroll in the Google Data Analytics Certificate.

☑ Spreadsheet

> ✓ **Correct**
> Structured data is organized in a certain format such as rows and columns. It is likely to be found in a table or spreadsheet. To learn about structured data, enroll in the Google Data Analytics Certificate.

☑ Database table

> ✓ **Correct**
> Structured data is organized in a certain format such as rows and columns. It is likely to be found in a table or spreadsheet. To learn about structured data, review course three of the Google Data Analytics Certificate.

☑ Digital photo

> ✗ **This should not be selected**
> Structured data is organized in a certain format such as rows and columns. It is likely to be found in a table or spreadsheet. To learn about structured data, enroll in the Google Data Analytics Certificate.

5. Fill in the blank: A Boolean data type can have _____ possible value(s).   `1 / 1 point`

○ three

⦿ two

○ infinite

○ one

> ✓ **Correct**
> A Boolean data type can have two possible values.

The following questions are designed to help you assess your comfort level with data strategy. Use them to self-reflect and make your own decisions about the foundational knowledge you need to be successful in this course.

6. What is the term for the individuals who have invested time and resources in a project and are interested in its outcome?

`1 / 1 point`

○ Subject-matter experts

○ Executives

○ Project sponsors

◉ Stakeholders

⊘ **Correct**
Stakeholders are individuals who have invested time and resources in a project and are interested in its outcome.

7. When collecting data for a study, what are some reasons to consider sample size? Select all that apply.

`1 / 1 point`

☐ To eliminate certain segments of a population

☑ To collect data that represents a diverse set of perspectives

⊘ **Correct**
Considering sample size ensures the data represents a diverse set of perspectives and helps avoid skewed results or inaccurate judgements.

☑ To make sure a few unusual responses don't skew results

⊘ **Correct**
Considering sample size ensures the data represents a diverse set of perspectives and helps avoid skewed results or inaccurate judgements.

☐ To include as many participants as possible in the study

8. The SMART methodology can be used to ask a question that promotes change. What type of SMART question leads to change?

`1 / 1 point`

○ Results-focused

◉ Action-oriented

○ Motivational

○ Transformational

⊘ **Correct**
A SMART question that promotes change is action-oriented.

9. Which of the following inquiries are leading questions? Select all that apply.

`0.75 / 1 point`

☐ How did you learn about our company?

☑ In what ways did our product meet your needs?

⊘ **Correct**
Leading questions include: How satisfied were you with our customer representative? In what ways did our product meet your needs? And what do you enjoy most about our service? Leading questions direct the respondent to a particular answer, often because they suggest the answer within the question.

☑ What do you enjoy most about our service?

⊘ **Correct**
Leading questions include: How satisfied were you with our customer representative? In what ways did our product meet your needs? And what do you enjoy most about our service? Leading questions direct the respondent to a particular answer, often because they suggest the answer within the question.

☐ How satisfied were you with our customer representative?

You didn't select all the correct answers

10. What are the key characteristics of a metric? Select all that apply.

`1 / 1 point`

☑ Metrics can be used to evaluate performance.

⊘ **Correct**
Metrics are quantifiable data types used for measurement and performance evaluation.

☐ Metrics are unorganized collections of facts.

☑ Metrics are used for measurement.

⊘ **Correct**
Metrics are quantifiable data types used for measurement and performance evaluation.

☑ Metrics are quantifiable.

⊘ **Correct**
Metrics are quantifiable data types used for measurement and performance evaluation.

The following questions are designed to help you assess your comfort level with data integrity and data cleaning. Use them to

11. Which type of bias is the tendency to construe ambiguous situations in a positive or negative way?

1 / 1 point

- ◉ Interpretation bias
- ○ Observer bias
- ○ Confirmation bias
- ○ Cultural bias

✓ **Correct**
Interpretation bias is the tendency to construe ambiguous situations in a positive or negative way.

12. Before completing a survey, an individual acknowledges reading information about how and why the data they provide will be used. What concept does this describe?

1 / 1 point

- ○ Transaction transparency
- ◉ Consent
- ○ Privacy
- ○ Openness

✓ **Correct**
This concept is called consent. Consent is the aspect of data ethics that presumes an individual's right to know how and why their personal data will be used before agreeing to provide it.

13. Which spreadsheet tool changes how cells appear when values meet a specific condition?

1 / 1 point

- ○ Alternating colors
- ◉ Conditional formatting
- ○ Protected ranges
- ○ Data validation

✓ **Correct**
Conditional formatting is the spreadsheet tool that changes how cells appear when values meet a specific condition.

14. Fill in the blank: In a spreadsheet, the SPLIT function divides a text string around a ___, then puts each fragment into a new, separate cell.

1 / 1 point

- ○ indicator
- ○ substring
- ○ mark
- ◉ delimiter

✓ **Correct**
In a spreadsheet, the SPLIT function divides a text string around a delimiter, then puts each fragment into a new, separate cell.

The following questions are designed to help you assess your comfort level with programming languages. Use them to self-reflect and make your own decisions about the foundational knowledge you need to be successful in this course.

15. Fill in the blank: A programming language is a system of words and symbols used to _____ for computers.

1 / 1 point

- ◉ write instructions
- ○ repair infrastructure
- ○ install hardware
- ○ detect malware

✓ **Correct**
A programming language is a system of words and symbols used to write instructions for computers.

16. What are the main benefits of using a programming language to work with data? Select all that apply.

1 / 1 point

- ☑ Easily reproduce and share work

✓ **Correct**
There are three main benefits of using a programming language to work with data: Easily reproduce and share work, save time, and clarify the steps of analysis.

- ☐ Automate decision-making
- ☑ Save time

✓ **Correct**
There are three main benefits of using a programming language to work with data: Easily reproduce and share work, save time, and clarify the steps of analysis.

- ☑ Clarify the steps of analysis

✓ **Correct**
There are three main benefits of using a programming language to work with data: Easily reproduce and share work, save time, and clarify the steps of analysis.

17. In order for code to work properly, it's necessary to follow the predetermined structure of the coding language. This includes all required words and symbols, as well as their proper placement. What is this structure called?

1 / 1 point

- ● Syntax
- ○ Standard
- ○ Script
- ○ Symbol

✓ **Correct**
In order for code to work properly, it's necessary to follow the syntax of the coding language. This includes all required words and symbols, as well as their proper placement.

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18. What is the term for programming code that is freely available and may be modified and shared by the people who use it?

1 / 1 point

- ○ Non-dependant
- ● Open-source
- ○ One-access
- ○ Common-design

✓ **Correct**
Open-source code is freely available and may be modified and shared by the people who use it.

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19. Data professionals use programming languages to enable which of the following? Select all that apply.

1 / 1 point

- ☑ Data visualization

✓ **Correct**
Data professionals use programming languages to enable data transformation, cleaning, and visualization.

- ☑ Data transformation

✓ **Correct**
Data professionals use programming languages to enable data transformation, cleaning, and visualization.

- ☑ Predictive modeling

✓ **Correct**
Data professionals use programming languages to enable data transformation, cleaning, visualization, and predictive modeling.

- ☑ Data cleaning

✓ **Correct**
Data professionals use programming languages to enable data transformation, cleaning, and visualization.

The following questions are designed to help you assess your comfort level with data visualization, dashboards, and sharing insights with others. Use them to self-reflect and make your own decisions about the foundational knowledge you need to be successful in this course.

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20. What type of data visualization should be used to demonstrate how often data values fall into certain ranges?

1 / 1 point

- ○ Correlation chart
- ○ Bar chart
- ● Histogram
- ○ Tree map

✓ **Correct**
To demonstrate how often data values fall into certain ranges, use a histogram.

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21. A dashboard is designed to share insights about the housing market in a city. What type of data visualization would be most effective at demonstrating how the city's annual home sales have risen over time?

1 / 1 point

- ○ Area chart
- ○ Scatter plot
- ● Line chart
- ○ Pie chart

✓ **Correct**
To demonstrate how the city's annual home sales have risen over time, a line chart would be most effective.

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22. What type of visualizations enable the data in a presentation to automatically update and change over time?

1 / 1 point

- ○ Static
- ○ Discrete
- ○ Customized

◉ Dynamic

✓ **Correct**
Dynamic visualizations enable the data in a presentation to automatically update and change over time.

23. Why is it more effective to label a data visualization instead of using a legend? Select all that apply. `0.75 / 1 point`

☑ Labels allow for text explanations to be placed directly on the visualization.

✓ **Correct**
It is more effective to label a data visualization instead of using a legend for several reasons: Labels can be placed near the data, they make the data visualization more accessible, and they allow for text explanations to be placed directly on the visualization.

☐ Labels help keep people's attention on relevant data by redirecting their focus away from outliers.

☑ Labels can be placed near the data, whereas legends are typically positioned away from the data.

✓ **Correct**
It is more effective to label a data visualization instead of using a legend for several reasons: Labels can be placed near the data, they make the data visualization more accessible, and they allow for text explanations to be placed directly on the visualization.

☐ Labels make the data visualization more accessible because they don't rely on the ability to interpret color.

You didn't select all the correct answers

24. A data visualization reveals two variables in the data that rise and fall at the same time. When variables are related in this way, what is likely happening? `1 / 1 point`

◉ Correlation

◯ Causation

◯ Polarity

◯ Divergence

✓ **Correct**
When two variables in a visualization rise and fall at the same time, this is an example of correlation. Correlation is the measure of the degree to which two variables change in relationship to each other.

25. Which of the following are appropriate uses for filters in data visualization tools? Select all that apply. `0.75 / 1 point`

☑ Highlighting individual data points

✓ **Correct**
Filters can be used to highlight individual data points, limit the number of rows or columns in view, and provide data to different users based on their needs.

☑ Limiting the number of rows or columns in view

✓ **Correct**
Filters can be used to highlight individual data points, limit the number of rows or columns in view, and provide data to different users based on their needs.

☐ Providing data to different users based on their particular needs

☐ Hiding outliers that do not support the hypothesis

You didn't select all the correct answers