name: class: date:

# Exploring Statistics in Data Science

1. Fill in the gaps with the right words!
2. Scan the QR code to check your answers interactively!
3. Copy the text in your exercise book!
4. Formulate the content of the text yourself!
   Use all gap words!

In the world of data science, _____ plays a crucial role in extracting meaningful information from raw _____. It involves collecting, analyzing, and interpreting data to make informed decisions. Data scientists use _____ methods to identify trends, patterns, and relationships within data _____. These insights can help businesses understand their customers better, improve _____, and make strategic decisions. One of the fundamental concepts in statistics is _____, which quantifies the likelihood of events occurring. This concept is essential for making _____ and estimating uncertainties in data analysis. Another important tool is _____ analysis, which helps in understanding the relationship between _____. For example, it can show how sales are affected by advertising spending. Data scientists also rely on _____ testing to validate their assumptions and theories. This _____ allows them to determine whether a particular strategy will likely succeed or not. _____ is another critical technique, enabling researchers to analyze a subset of data and generalize findings to a larger population. Moreover, _____ statistics provide a summary of the main features of a dataset, offering a quick _____ of the data's shape and characteristics. Through _____ statistics, data scientists can make predictions about a population based on a sample. The use of machine _____, a subset of data science, further enhances statistical analysis by allowing _____ to learn from data and improve their performance over time. Lastly, _____ tools transform complex results into understandable _____, making it easier for everyone to comprehend the insights derived from statistical _____. Together, these statistical methods empower data scientists to unlock the full potential of data, paving the way for _____ and smarter decision-making in various fields.

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| overview | regression | hypothesis | statistical | graphics | computers | innovations |
| visualization | probability | data | Sampling | inferential | method | statistics |
| variables | learning | descriptive | products | sets | predictions | analyses |

**Reference:** https://materials.school/educational-activities/task-collection/computer-science/exploring-statistics-data-science (created with ChatGPT)