

Fundamentals of Data Science

Data Science · Answer Key · 18 Questions

1. Which type of graph is best used to show the relationship between two continuous variables?

- A) Bar chart
- B) Scatter plot**
- C) Pie chart
- D) Histogram

2. What is the term for a raw, unorganized collection of facts and figures?

- A) Information
- B) Knowledge
- C) Data**
- D) Wisdom

3. In a dataset, what is the 'mean' typically referring to?

- A) The middle value
- B) The most frequent value
- C) The average value**
- D) The difference between the highest and lowest

4. What is the primary purpose of a data cleaning process?

- A) To encrypt the data
- B) To remove errors and inconsistencies**
- C) To increase the file size
- D) To change the file format

5. Which of these is considered a 'categorical' variable?

- A) Height in centimeters
- B) Weight in kilograms
- C) Eye color**
- D) Temperature

6. What does the term 'outlier' describe in a data set?

- A) The most common value
- B) A value that is significantly different from others**
- C) The average of the data
- D) The total sum of the data

7. Which tool is most commonly used by data scientists to perform calculations and organize data in a grid format?

A) Web browser

B) Spreadsheet software

C) Video player

D) Audio recorder

8. What is the process of representing data in a visual format like a chart or map called?

A) Data encoding

B) Data visualization

C) Data mining

D) Data streaming

9. Which of these is a measure of the 'spread' of a dataset?

A) Median

B) Mode

C) Range

D) Mean

10. In Python, which popular library is primarily used for data analysis and manipulating tables?

A) Pandas

B) Pygame

C) Flask

D) Django

11. What is a 'sample' in the context of statistics?

A) The entire population

B) A subset of the population

C) A type of computer virus

D) A database query

12. Which file format is widely used for storing tabular data in plain text?

A) CSV

B) EXE

C) JPG

D) MP3

13. What is the 'median' of the set {1, 3, 3, 6, 7, 8, 9}?

- A) 3
- B) 5
- C) 6**
- D) 7

14. Which step comes first in the standard data science lifecycle?

- A) Modeling
- B) Data collection**
- C) Data visualization
- D) Deployment

15. What does SQL stand for in the context of databases?

- A) Standard Query Language
- B) Structured Query Language**
- C) Simple Question Logic
- D) System Quality List

16. Which of the following is a common way to display 'parts of a whole'?

- A) Pie chart**
- B) Scatter plot
- C) Line graph
- D) Box plot

17. What is the 'mode' of the set {2, 2, 4, 5, 8}?

- A) 2**
- B) 4
- C) 5
- D) 8

18. In data science, what is a 'feature'?

- A) A file extension
- B) An individual measurable property of the data**
- C) The name of the database
- D) A type of computer hardware