

1. What type of data visualisation is a histogram?
  - a. Scatter plot
  - b. Line chart
  - c. Bar chart
  - d. Frequency distribution
2. In a histogram, what is represented on the x-axis?
  - a. Categories
  - b. Frequency
  - c. Percentage
  - d. Range of values
3. What is the primary purpose of a histogram?
  - a. Showing proportions
  - b. Displaying trends over time
  - c. Representing categorical data
  - d. Presenting the distribution of numerical data
4. How is the number of bins determined in a histogram?
  - a. Subjective choice
  - b. Fixed formula
  - c. Data range
  - d. All of the above
5. In a bar chart, what is represented by the length of the bars?
  - a. Frequency
  - b. Percentage
  - c. Range
  - d. Standard deviation
6. Which type of data is best represented by a bar chart?
  - a. Numerical
  - b. Categorical
  - c. Time series
  - d. Geospatial
7. What is the main difference between a histogram and a bar chart?
  - a. The type of data they represent
  - b. The presence of gaps between bars
  - c. The orientation of the bars
  - d. The number of bars
8. What does each slice in a pie chart represent?
  - a. Frequency
  - b. Percentage
  - c. Range
  - d. Standard deviation

9. When is it appropriate to use a pie chart?
- a. Showing trends over time
  - b. Comparing individual data points
  - c. Representing parts of a whole
  - d. Displaying geospatial data
10. What type of data is commonly visualised using a heatmap?
- a. Categorical
  - b. Numerical
  - c. Time series
  - d. Geospatial
11. In a heatmap, what do the colours represent?
- a. Frequency
  - b. Intensity or value
  - c. Range
  - d. Standard deviation
12. What is a violin plot used for?
- a. Displaying distribution of numerical data
  - b. Comparing categorical data
  - c. Showing geospatial trends
  - d. Representing time series data
13. What does the width of the "violin" in a violin plot indicate?
- a. Range of values
  - b. Frequency
  - c. Density of data points
  - d. Skewness
14. In a skewed right distribution, where is the tail of the data located?
- a. Left side
  - b. Right side
  - c. Center
  - d. Both sides equally
15. What does a negative skewness value indicate?
- a. Skewed left
  - b. Skewed right
  - c. Symmetric distribution
  - d. No skewness
16. In a perfectly symmetrical distribution, what is the skewness value?
- a. 0
  - b. 1
  - c. -1
  - d. Cannot be determined

17. What type of data is best visualised using a dot plot?
- a. Numerical
  - b. Categorical
  - c. Time series
  - d. Geospatial
18. How are individual data points represented in a dot plot?
- a. Bars
  - b. Dots
  - c. Lines
  - d. Areas
19. What is the main purpose of a stem-and-leaf plot?
- a. Displaying distribution of numerical data
  - b. Comparing categorical data
  - c. Showing geospatial trends
  - d. Representing time series data
20. In a stem-and-leaf plot, what does the stem represent?
- a. Individual data points
  - b. Ranges of values
  - c. Frequency
  - d. Skewness
21. In a left-skewed distribution, where is the tail of the data located?
- a. Left side
  - b. Right side
  - c. Center
  - d. Equally distributed on both sides
22. What does a positive skewness value indicate?
- a. Skewed left
  - b. Skewed right
  - c. Symmetric distribution
  - d. No skewness
23. When is a pie chart considered misleading?
- a. When there are too many categories
  - b. When the data is evenly distributed
  - c. When it represents a small dataset
  - d. When comparing individual data points
24. What is the primary purpose of a histogram?
- a. Displaying the distribution of numerical data
  - b. Comparing individual data points
  - c. Representing trends over time
  - d. Comparing categories

25. In a right-skewed distribution, where is the majority of the data located?

- a. Left side
- b. Right side
- c. Center
- d. Equally distributed on both sides

26. What is the main drawback of using a pie chart?

- a. Limited to categorical data
- b. Difficult to interpret
- c. Cannot represent percentages
- d. Not suitable for small datasets

27. Which of the following is a characteristic of a left-skewed distribution?

- a. Median > Mean
- b. Median < Mean
- c. Median = Mean
- d. Median is not affected by skewness

28. In a histogram, what is typically shown on the y-axis?

- a. Categories
- b. Frequency
- c. Percentage
- d. Range of values

29. When is it appropriate to use a pie chart?

- a. Showing proportions
- b. Comparing individual data points
- c. Representing trends over time
- d. Displaying geospatial data

30. What type of data is best represented by a bar chart?

- a. Numerical
- b. Categorical
- c. Time series
- d. Geospatial