

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

Certainly! Here are questions 21 to 40:

21. 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
22. What is the primary disadvantage of using a bar chart?
- ☒ a. Difficulty in comparing individual data points
 - b. Limited to categorical data
 - c. Inability to show trends over time
 - d. Not suitable for large datasets
23. When should a histogram be preferred over a bar chart?
- a. When comparing individual data points
 - b. When showing proportions
 - c. When representing parts of a whole
 - ☒ d. When displaying the distribution of numerical data
24. What type of data is typically suitable for a pie chart?
- a. Numerical
 - ☒ b. Categorical
 - c. Time series

d. Geospatial

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

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

26. What does a negative skewness value indicate?

- ☒ a. Skewed left
- b. Skewed right
- c. Symmetric distribution
- d. No skewness

27. When is a bar chart more appropriate than a histogram?

- ☒ a. When comparing individual data points
- b. When showing proportions
- c. When representing parts of a whole
- d. When displaying the distribution of numerical data

28. What is the primary purpose of a pie chart?

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

29. What is the key difference between a bar chart and a histogram?

- ☒ a. The type of data they represent
- b. The presence of gaps between bars
- c. The orientation of the bars
- d. The number of categories

30. 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

31. What does a positive skewness value indicate?

- a. Skewed left
- ☒ b. Skewed right
- c. Symmetric distribution
- d. No skewness

32. 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
33. 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
34. 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
35. 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
36. 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
37. In a histogram, what is typically shown on the y-axis?
- a. Categories
 - ☒ b. Frequency
 - c. Percentage
 - d. Range of values
38. 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
39. What is the primary purpose of a histogram?
- a. Comparing categories
 - b. Showing proportions
 - c. Representing parts of a whole
 - ☒ d. Displaying the distribution of numerical data
40. What type of data is best represented by a bar chart?
- a. Numerical
 - ☒ b. Categorical
 - c. Time series

d. Geospatial