1. What does each slice in a pie chart represent?
   - a. Frequency
   - b. Percentage
   - c. Range
   - d. Standard deviation
2. When is it appropriate to use a pie chart?
   - a. Showing proportions
   - b. Comparing individual data points
   - c. Representing parts of a whole
   - d. Displaying geospatial data
3. 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
4. What type of data is typically suitable for a pie chart?
   - a. Numerical
   - b. Categorical
   - c. Time series
   - d. Geospatial
5. 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
6. In a bar chart, what is represented by the length of the bars?
   - a. Frequency
   - b. Percentage
   - c. Range
   - d. Standard deviation
7. Which type of data is best represented by a bar chart?
   - a. Numerical
   - b. Categorical
   - c. Time series
   - d. Geospatial
8. 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
9. When should a bar chart be preferred over 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
10. 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
11. What type of data visualization is a histogram?

- a. Scatter plot
- b. Line chart
- c. Bar chart
- d. Frequency distribution

12. In a histogram, what is represented on the x-axis?**
- a. Categories
- b. Frequency
- c. Percentage
- d. Range of values

13. 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

14. How is the number of bins determined in a histogram?
- a. Subjective choice
- b. Fixed formula
- c. Data range
- d. All of the above

15. 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

16. **In a histogram, what is typically shown on the y-axis?**
- a. Categories
- b. Frequency
- c. Percentage
- d. Range of values

17. What type of data is commonly visualised using a heatmap?
- a. Categorical
- b. Numerical
- c. Time series
- d. Geospatial

18. In a heatmap, what do the colours represent?
- a. Frequency
- b. Intensity or value
- c. Range
- d. Standard deviation

19. What is a primary advantage of using a heatmap?
- a. Easy to compare individual data points
- b. Effective for visualizing the distribution of values in a matrix
- c. Shows proportions clearly
- d. Good for trend analysis over time

20. What does a heatmap typically represent?
- a. Parts of a whole
- b. Distribution of numerical data
- c. Frequency of categories
- d. Trends over time