

**1 What chart would you use for trend analysis?**

**Answer:**

A **line chart** is used for trend analysis because it shows how a variable changes over time or over a continuous range, making patterns and trends easy to identify.

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**2 What chart helps identify correlation?**

**Answer:**

A **scatter plot** helps identify correlation because it shows the relationship between two numerical variables and indicates whether they increase or decrease together.

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**3 How do you detect outliers visually?**

**Answer:**

Outliers can be detected visually using **scatter plots** and **histograms**. Points that lie far away from the main data cluster or extreme bars in a histogram indicate possible outliers.

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**4 Why is labeling and formatting charts important?**

**Answer:**

Labeling and formatting charts are important because they improve readability, clarity, and interpretation. Proper titles, axis labels, legends, and gridlines help viewers understand the data correctly and avoid confusion.

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**5 Explain the difference between histogram and bar chart.**

**Answer:**

A **histogram** is used to show the distribution of numerical data grouped into continuous intervals, whereas a **bar chart** is used to compare categorical data. In a histogram, bars touch each other, while in a bar chart, bars are separated.