Displaying Data: Histograms

Displaying Data



Displaying data helps us:

- organise information clearly
- identify patterns and trends
- compare data sets
- describe spread and variation

Types of data displays

The type of data display you choose depends on:

- the type of data being collected
- what you want to show or compare
- the patterns or trends you want to identify

Understanding a Histogram

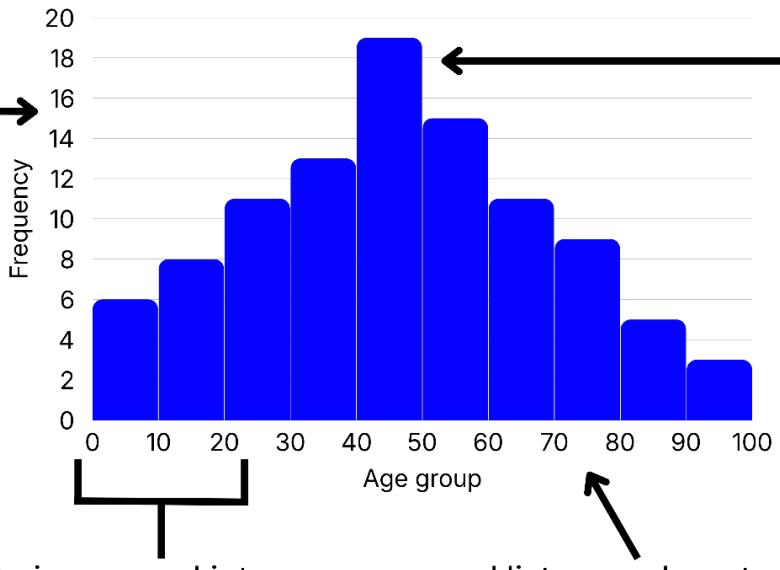
A histogram displays grouped numerical data using touching bars, where the height of each column indicates the frequency within that interval.

It is best used for:

- large numerical, continuous data sets
- showing frequency and distribution

Features of a histogram

Frequency is the number of data values in a class interval.



The height of each bar represents frequency

Data is grouped into even spread class intervals

Histogram bars touch (no gaps) because the data is continuous

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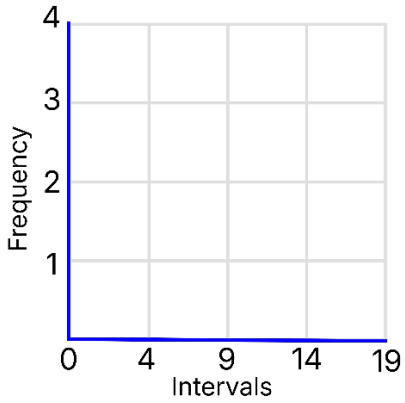
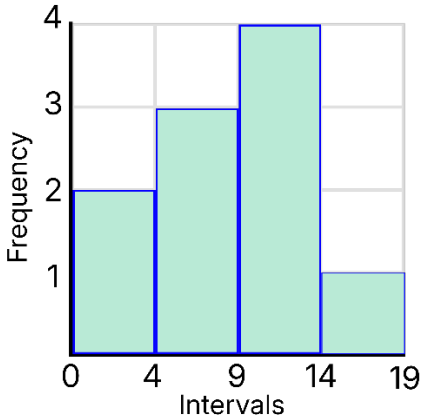
Constructing a Histogram

Steps	Example
1. Create intervals to construct a frequency table	Data: 2, 4, 5, 7, 8, 10, 11, 12, 14, 15 Interval / Frequency: 0–4: 2; 5–9: 3; 10–14: 4; 15–19: 1
2. Draw the axes • X-axis = intervals • Y-axis = frequency	
3. Draw the bars • Bars must touch • Height of each bar equals the frequency	

Related Helpsheets

- Displaying Data: Box Plots
- Measures of Spread
- Standard Deviation

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