

# Frequency Polygon

A frequency polygon is a statistical diagram for *continuous* data.

The x axis represents the continuous variable and the y axis represents the frequency.

To plot a frequency polygon you should:

1. Find the midpoint of each class
2. Plot the midpoint against the frequency
3. Join up the points with straight lines

It is sometimes introduced as drawing a histogram with equal class widths, then marking the midpoint of the top of each bar and joining them with a straight line but you must remember to rub out the histogram afterwards

2 or more frequency polygons can be plotted on one graph with a key to distinguish between them. This allows for easy comparisons between sets of continuous data

When comparing data from two or more frequency polygons we should always try to comment on:

**Spread:** Identify which polygon has the largest range of data

- To calculate the range you work out the difference between where the graph starts and ends

**Average:** Identify which polygon has the largest median

- The **mode** on a frequency polygon is the peak of the graph

**Skew:** Identify whether each polygon has a positive or negative skew

- Positive skew is where the peak is closer to the start of the graph
- Negative skew is where the peak is closer to the end of the graph