

# Frequency histogram and polygon

The **frequency histogram** is like a **column graph** without the spaces between columns.

The **frequency polygon** is a special **line graph** used in statistics.

These graphs can be drawn separately or combined.

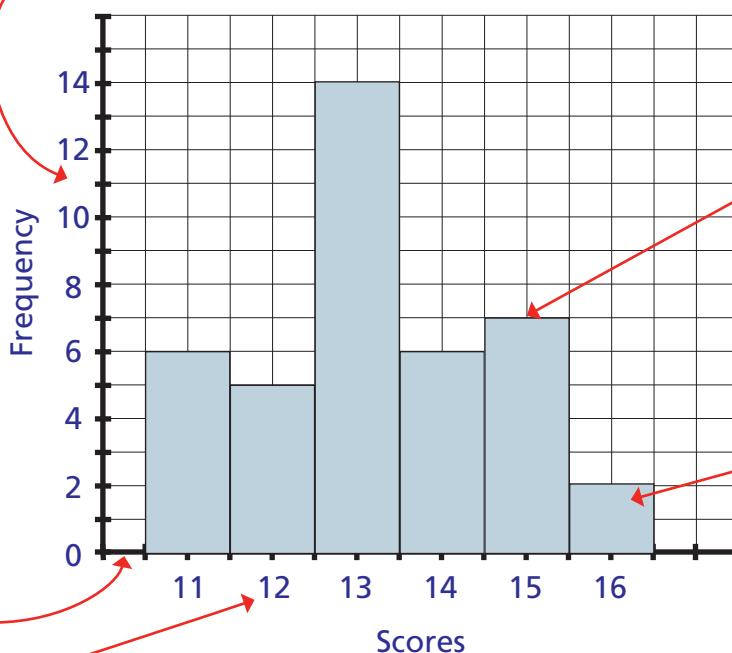
The information in a **frequency distribution table** can be used to draw these graphs.

Score	Tally	Frequency
11	I	6
12		5
13		14
14	I	6
15	II	7
16		2
		40

The scores go on the horizontal axis

The frequency goes on the vertical axis

**Frequency Histogram**



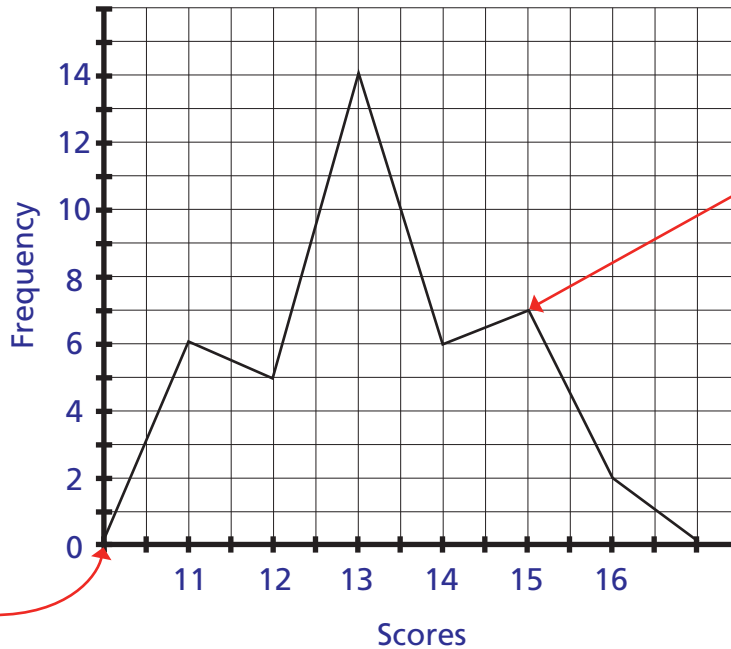
The area of the column represents the frequency for that score

The columns have no space between them

Allow a half-column width gap at the start

The frequency polygon is drawn on axes the same as the histogram – the scores on the horizontal axis and the frequency on the vertical axis.

Frequency Polygon



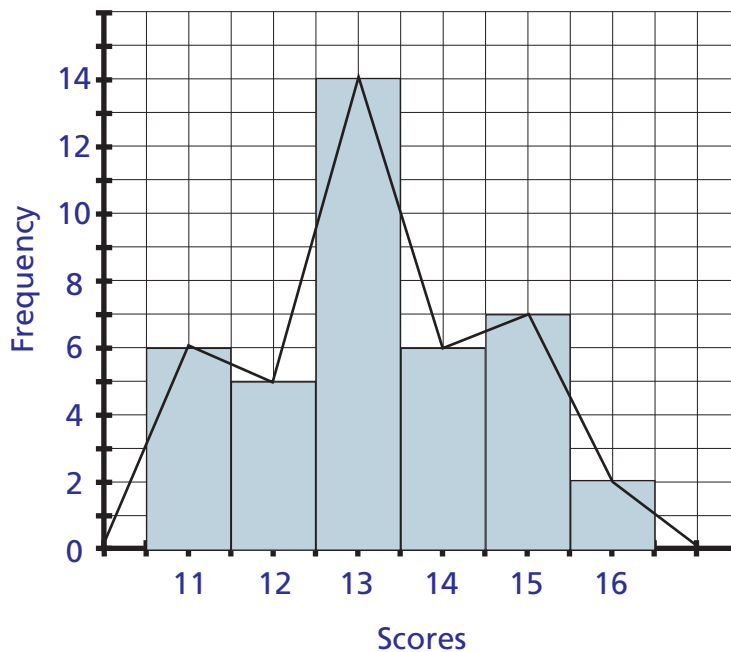
Polygon starts at the corner, one unit before the first score

The points show the frequency for that score

Polygon finishes on the axis, one number after the last score

When both the frequency histogram and polygon are drawn on the same axes they look like this:

Frequency Histogram



The area under the polygon is the same as the area of the histogram.