

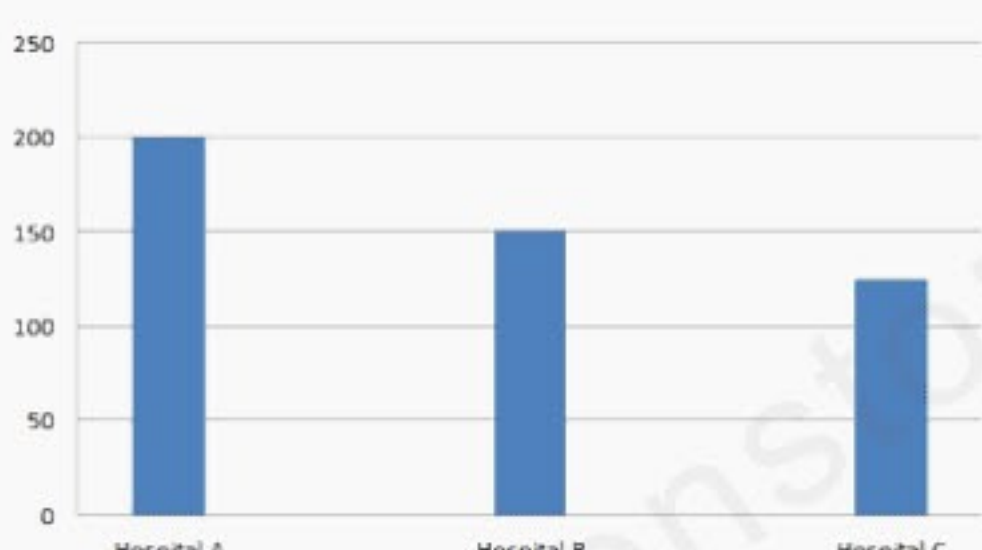
Name and Image

Description

Advantages

Disadvantages

Number of Births in Hospitals



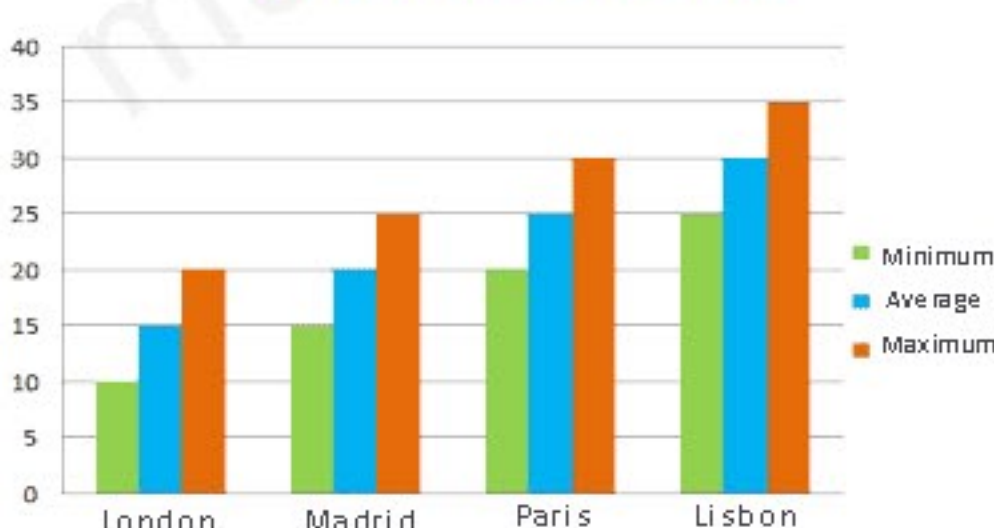
Pareto Diagram or Bar Graph

The height of the bars shows the frequency. The bars can be vertical or horizontal. There is an empty space between the bars.

Allows you to easily compare. It has strong visual impact.

It can only be used to convey simple information.

Temperatures in Cities



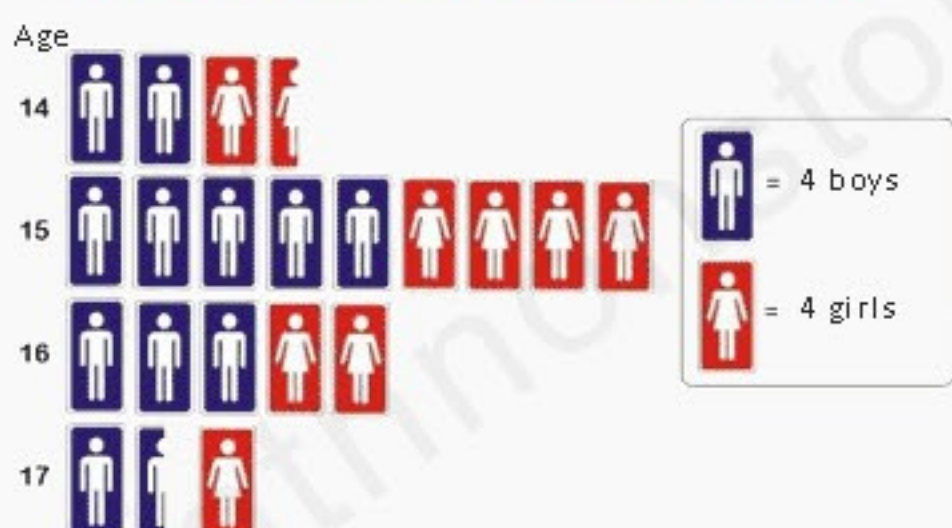
Grouped Bar Graph

For each value of the variable a group of bars appears.

Lets you compare different data groups for the same values of the variable.

Can not be used for variables that have a lot of data.

Distribution of Students in a Class



Pictograph

The data are represented by symbols related to the object under study.

Very attractive. Great visual impact.

Gives little information. Little precision.

Weekly Channel Audience



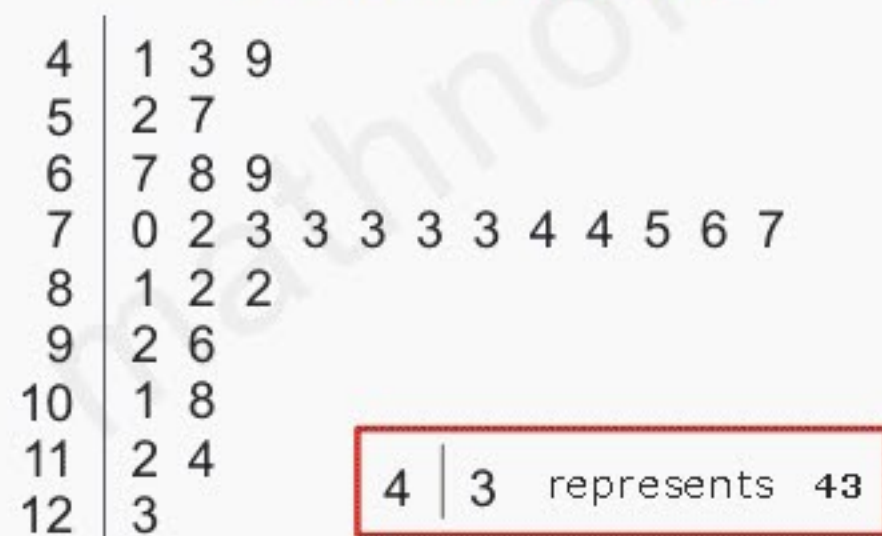
Line Graph

They are formed by lines. On the horizontal axis is the time variable.

Allows for various types of comparisons. It allows studying the variation of a variable over time.

It does not easily identify the continuity of the variation.

Time Spent on a Exam



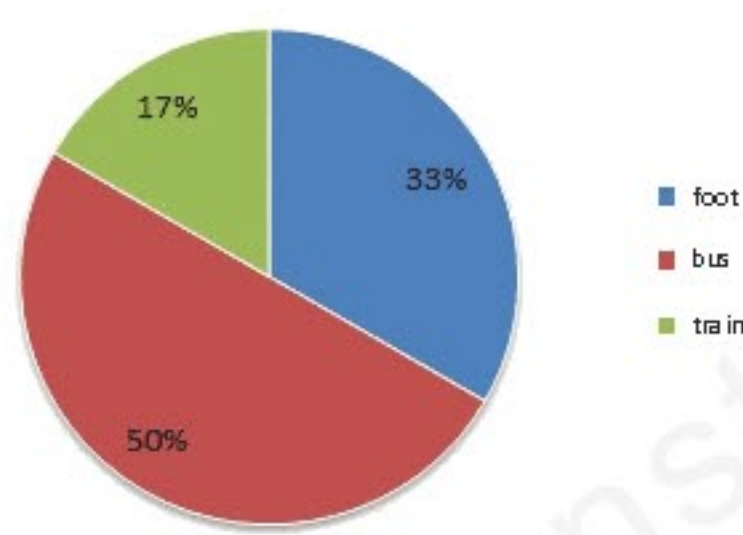
Stem and Left Plot

The data are divided into two parts: the stem and the leaves. The stem is on the left side of the vertical trace and the leaves on the right side.

All data appears on the chart. It is not necessary to build a frequency table beforehand. It gives a visual interpretation of how the data is distributed.

It is not advisable when there are many or few stems. It gives little information in case the data is very scattered.

Transportation to school



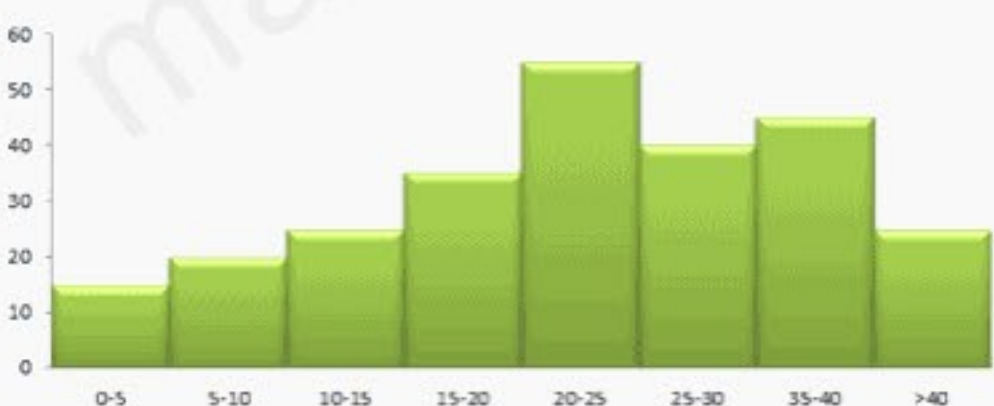
Pie Chart or Circle Graph

A circle is divided into sectors. The amplitude of each sector is proportional to the corresponding frequency.

It is useful when the ratios analysis is more important than the actual value. It has a strong visual impact.

It should only be used when the variable takes few values. A single chart does not allow you to compare two groups of data.

Age Range of Visitors



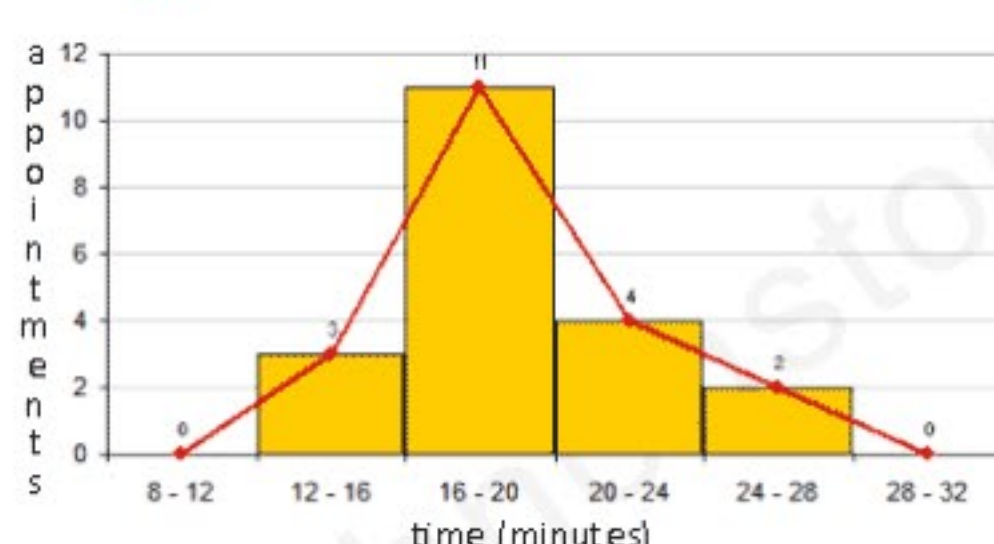
Histogram

It is a bar graph in which the height of these bars is proportional to the frequency. There is no space between bars. It is only used if the variable is quantitative and the scale of the values is continuous.

For certain situations, it is the only correct way to present the data. The histogram gives an idea of how the data is distributed.

Difficult to construct when the amplitude of the intervals is different. However, with graphing calculators or computers, this problem is overcome.

Appointments in the Health Center



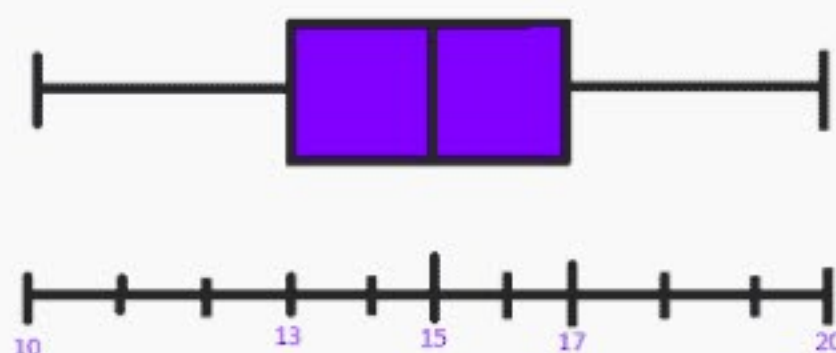
Frequency Polygons

It is a line graph that is obtained by joining the midpoints of the upper base of the rectangles of the histogram.

Lets you compare histograms using only the respective frequency polygons.

Difficult manual construction. Using technology, this problem is overcome.

Math Exam Notes



Box Plots

It consists of a rectangle and two straight segments. About 50% of the data is within the rectangle, 25% to the right and 25% to the left.

For a simple observation, it gives an idea of how the data is distributed.

For its construction it is necessary to know: the minimum, the maximum, the median (middle quartile), the lower and the upper quartile.