

Tabular presentation

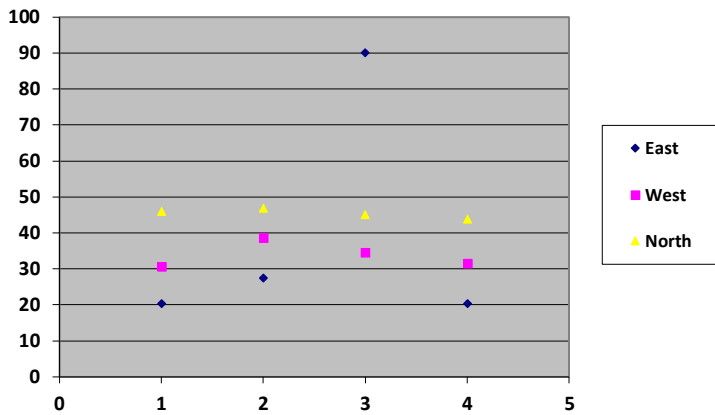
During the year 500 cases of diarrheea with 200 of males & 300 Of female , 600 cases of T. B with 300 of males & 300 Of female .

Diseases	Male	Female	Total
Diarrhea	200	300	500
T. B	300	300	600
Total	500	600	1100

Characteristics of a statistical table

- 1. Serial number**
- 2. Title :** should have a precise title , simple ,self explanatory ,refers to place time, person
- 3. Left column** has different items on which the information have been collected .
- 4. Caption:** the heading column is indicting different categories , different periods --- that called Caption
- 5. Box head :** put the title puts in upper middle part of table .
- 6. Body of the table :** all numerical data put in the body of the table
- 7. Footnote :** below the table that indicates the source of the data , any remarks or abbreviations should put in footnote

3.Diagramatic presentation : - line Diagram



freq

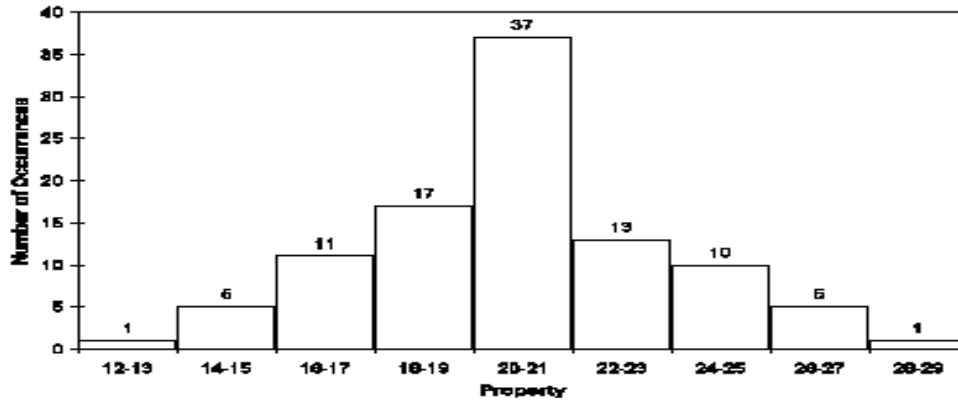


categories

histogram :The frequency histogram is a very effective graphical and easily interpreted method for summarizing data provides information about:

- the average (mean) of the data
- the variation present in the data
- the pattern of variation
- whether the process is within specifications

frequency histogram



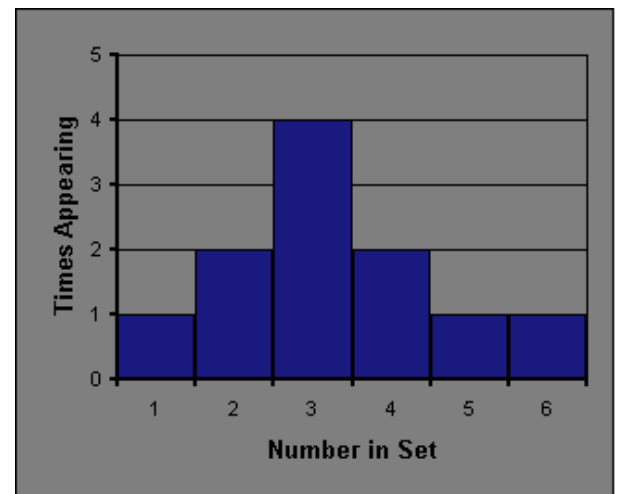
Drawing Frequency Histograms

In drawing frequency histograms, put in mind the following rules:

- Intervals should be equally spaced
- Select intervals to have convenient values
- Number of intervals is usually between 6 to 15 or 20
- Small amounts of data require fewer intervals
- 10 intervals is sufficient for 50 to 200 readings

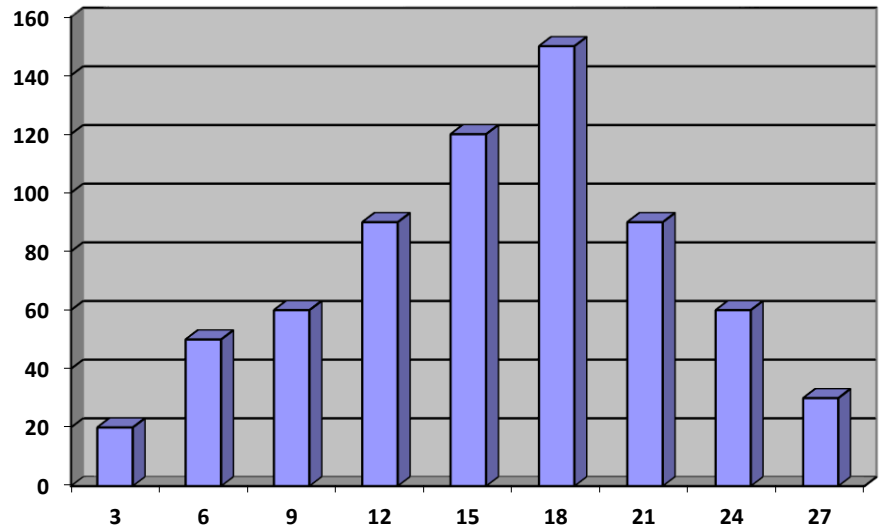
What is a Histogram?

A histogram is "a representation of a frequency distribution by means of rectangles whose widths represent class intervals and whose areas are proportional to the corresponding frequencies." groups of numbers according to how often they appear. Thus if we have the set $\{1,2,2,3,3,3,3,4,4,5,6\}$, we can graph them like this:



Part of the power of histograms is that they allow us to analyze extremely large data sets by reducing them to a single graph that can show primary, secondary and tertiary peaks in data as well as give a visual representation of the statistical significance of those peaks. To get an idea, look at these three histograms:

**frequency
distribution**



children weight

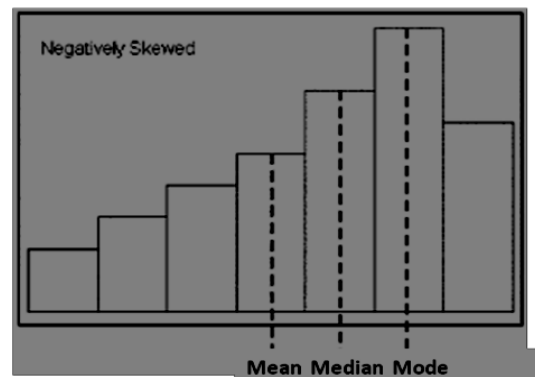
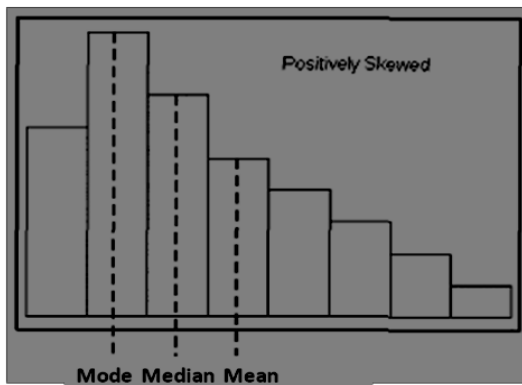
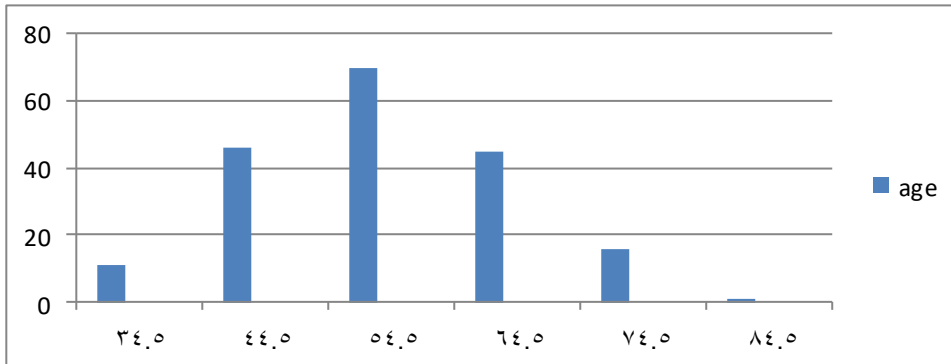
Example ; age distribution as the following ;draw a histogram & frequency polygon:

C.I	Frequency
29-39	11
39-49	46
49-59	70
59-69	45
69-79	16

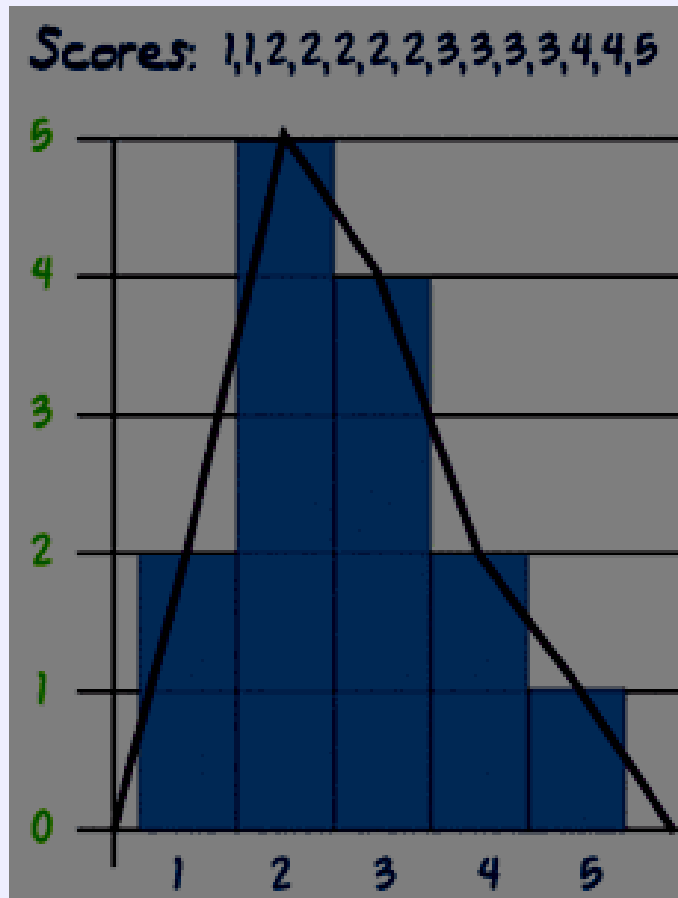
79-89

1

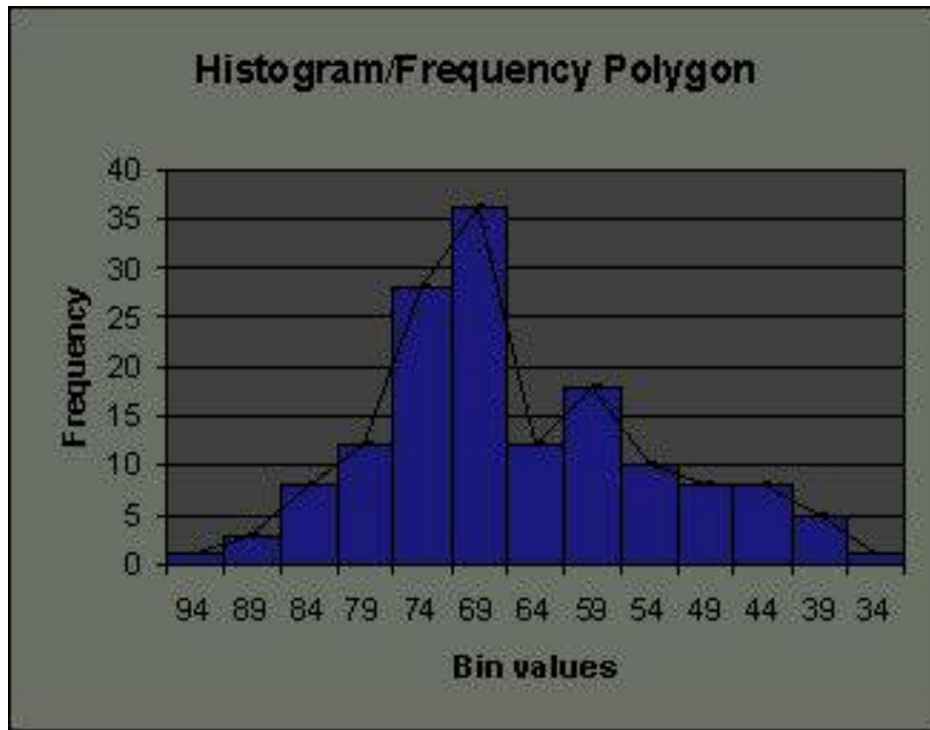
1. Find mid class interval
2. Draw histogram



Frequency Polygon



A graph made by joining the middle-top points of the columns of a frequency histogram



☞ This is a histogram with an overlaid frequency polygon.

Mid points of the interval of corresponding rectangle in a histogram are joined together by straight lines. It gives a polygon i.e. a figure with many angles. it is **used when two or more sets of data are to be illustrated on the same diagram such as death rates in smokers and non smokers, birth and death rates of a population et** One way to form a frequency polygon is to connect the midpoints at the top of the bars of a histogram with line segments (or a smooth curve). Sometimes it is beneficial to show the histogram and frequency polygon together.

Unlike histograms, frequency polygons can be superimposed so as to compare several frequency distributions.

Frequency polygons are a graphical device for understanding the shapes of distributions. They serve the same purpose as histograms, but are especially helpful for comparing sets of data. Frequency polygons are also a good choice for displaying [cumulative frequency distributions](#).

To create a frequency polygon, start just as for [histograms](#), by choosing a [class interval](#). Then draw an X-axis representing the values of the scores in your data. Mark the middle of each class interval with a tick mark, and label it with the middle value represented by the class. Draw the Y-axis to indicate the frequency of each class. Place a point in the middle of each class interval at the height corresponding to its frequency. Finally, connect the points. that should include one class interval below the lowest value in data and one above the highest value. The graph will then touch the X-axis on both sides.

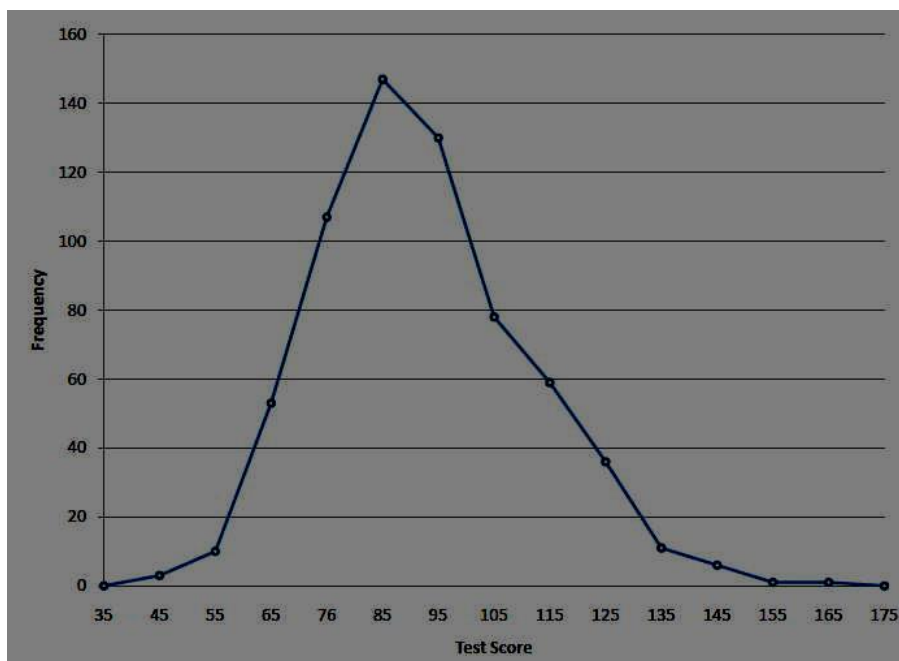


Figure 1. Frequency polygon for the psychology test scores.

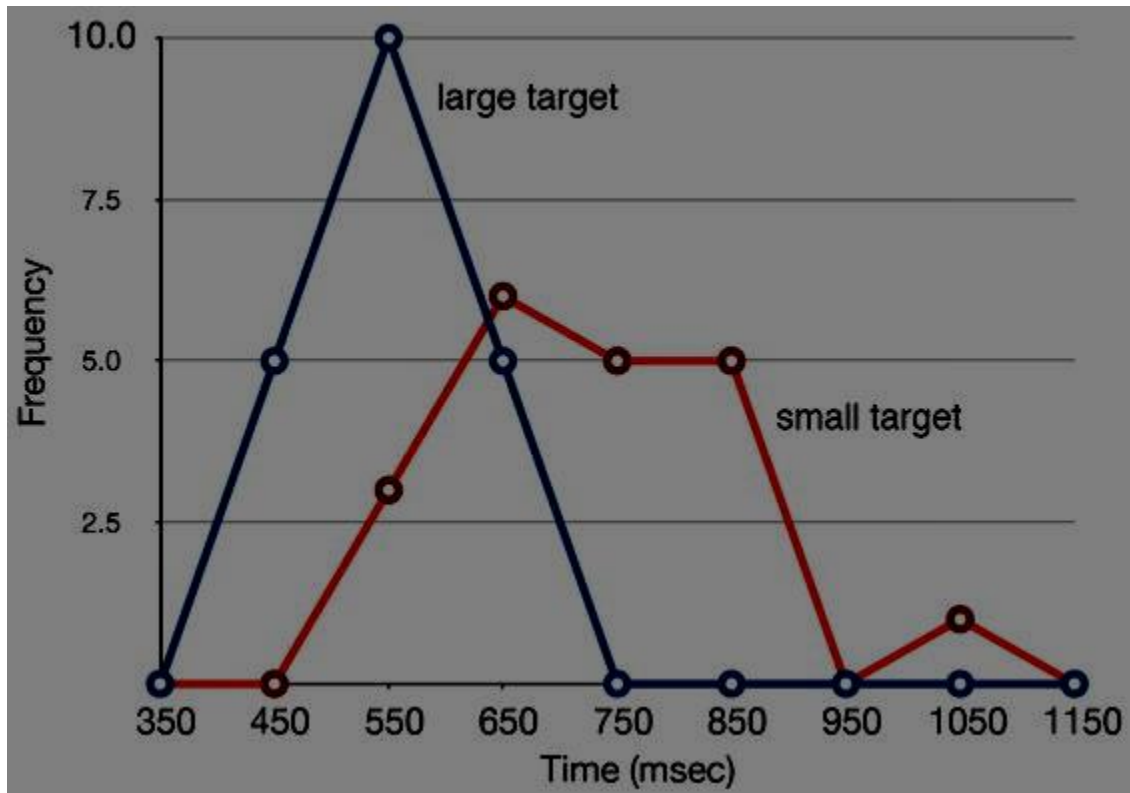
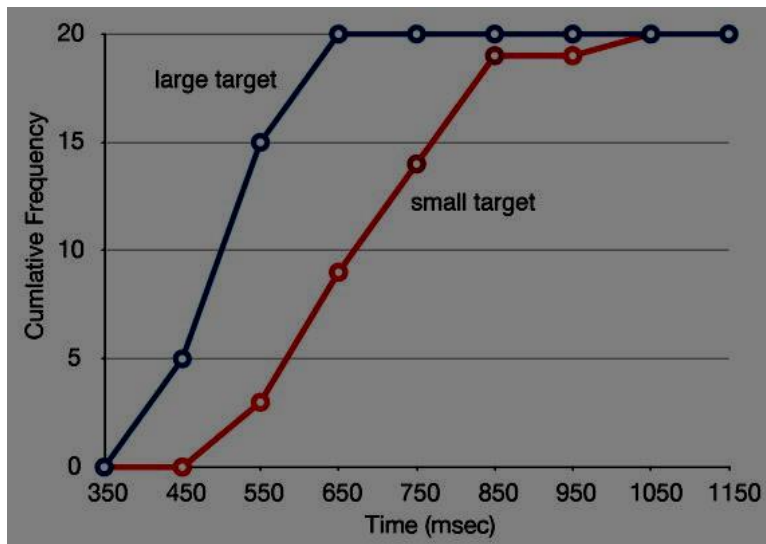
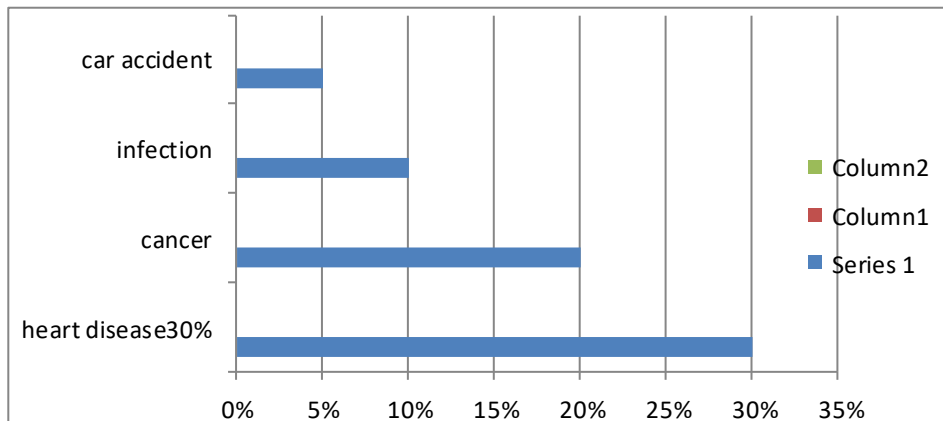


Figure 2. Overlaid frequency polygons.

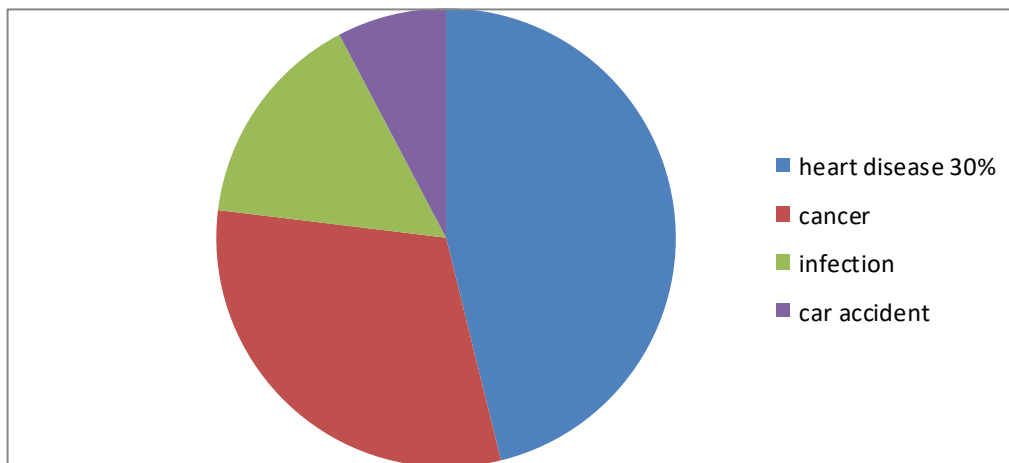
It is also possible to plot two cumulative frequency distributions in the same graph. This is illustrated in Figure 4 using the same data from the cursor task. The difference in distributions for the two targets is again evident.



cumulative frequency polygons.



Bar chart



Pie chart