



SUMMARISING DATA



Frequency Tables

To summarise one categorical variable we need to:

- a. **Construct a table showing the:**
- Variable name
 - Name of each category
 - The count, proportion and/or
 - Percentage of observations in each category

b. **The table should also show the sample size (n).**

Excel Commands

Mean

=AVERAGE(array of numbers)

Median

=Median(array of numbers)

Variance

=VAR.S(array of numbers)

Standard Deviation

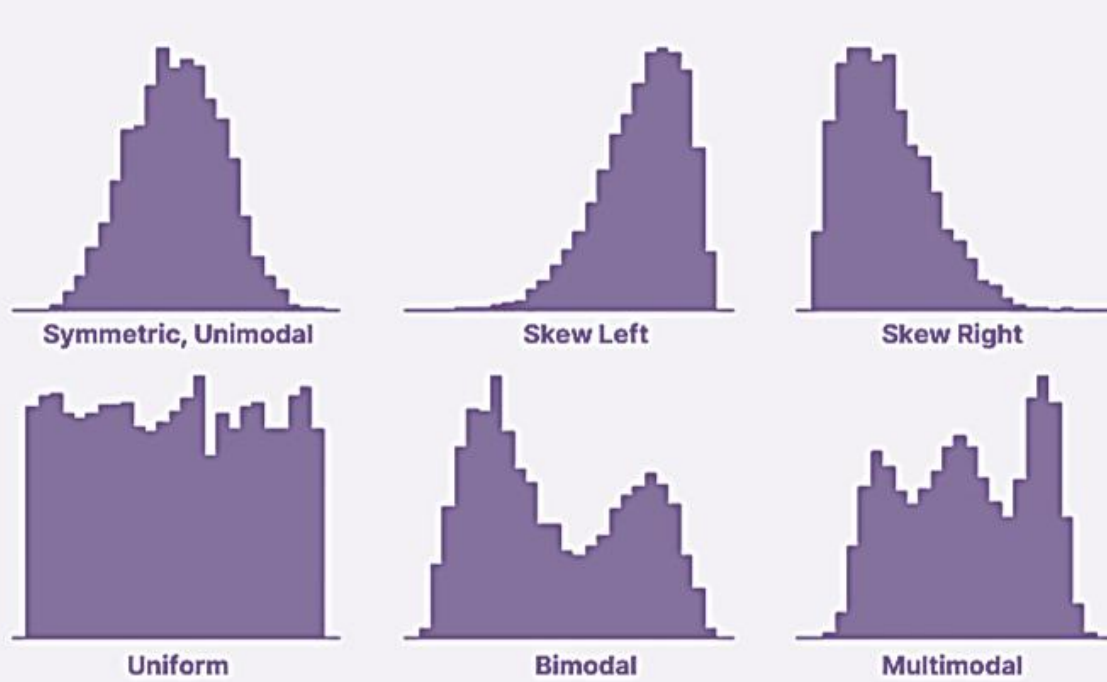
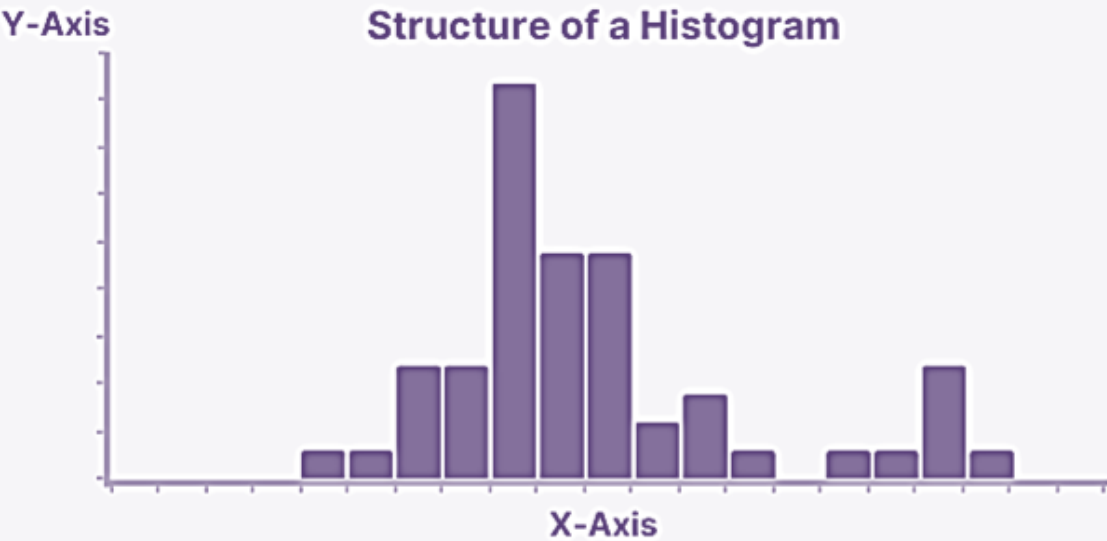
=STDEV.S(array of numbers)

Range of Values

=MAX(array of numbers)-MIN(array of numbers)

Interquartile Range

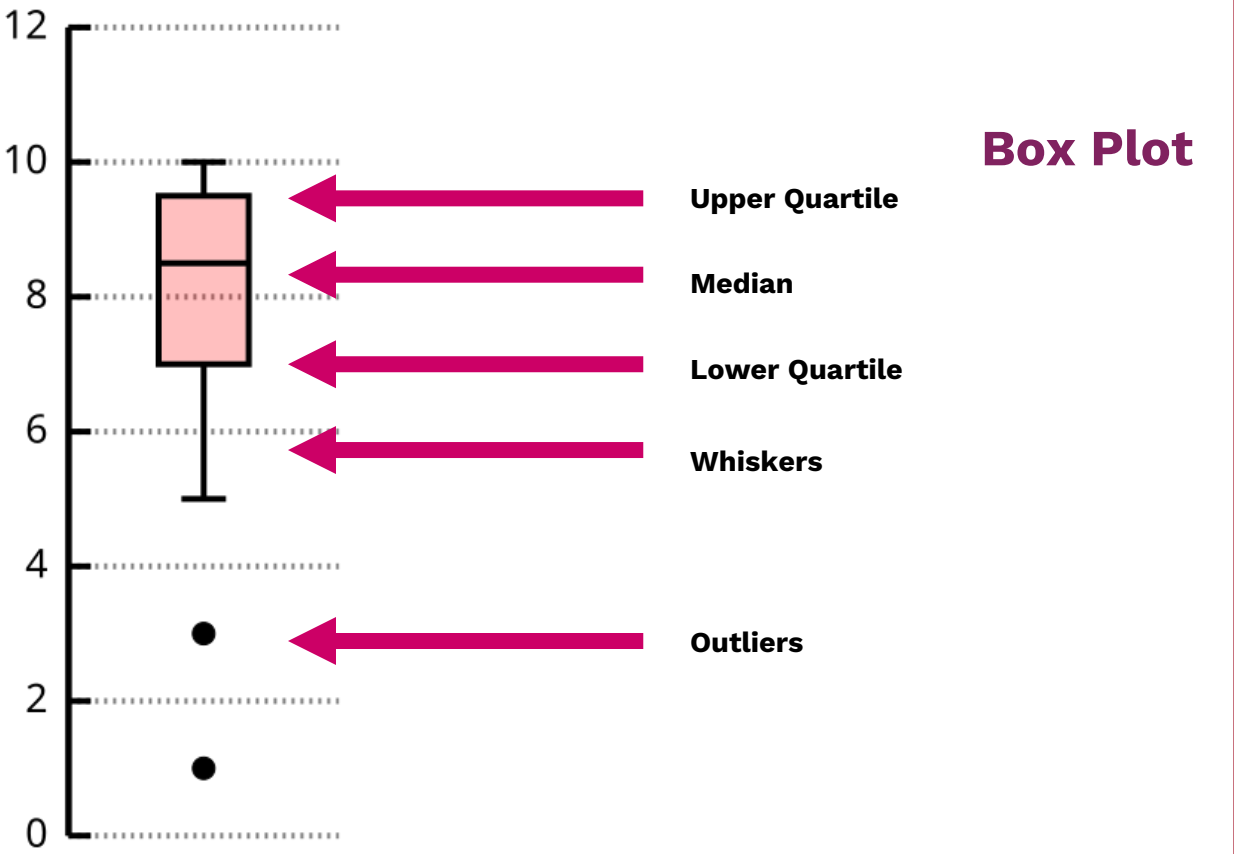
=QUARTILE.EXC(array of numbers, 3)-QUARTILE.EXC(array of numbers, 1)



Notation

For variable X we label observations using a subscript i.e.

- The first observation: X_1
- The second observation: X_2
- The n-th observation: X_n



	Sample Statistic	Population Parameter
Mean	\bar{x}	μ
Standard Deviation	s	σ
Variance	s^2	σ^2