R as a Calculator

`exp(x)`	Exponential	`sum(x)`	Sum.
`log(x)`	Natural log.	`cumsum(x)`	Cumulative Sum.
`max(x)`	Largest element.	`ceil(x)`	Round up.
`min(x)`	Smallest element.	`floor(x)`	Round down.
`mean(x)`	Mean.	`median(x)`	Median.
`var(x)`	Variance.	`quanti le(x)`	Percentage quantiles.
`x %% y`	Modulo		

Univariate Data: I/O

`write( data, " myd ata.da t")`	Write data as binary.
`scan("m yda ta.d at ")`	Read binary data.

Univariate Data: Plotting

`plot(data)`	Plot quick overview.
`barplot(x)`	Barplot of absolute frequencies.
`plot.e cdf (data)`	Plot ECDF.
`hist(data, prob=TRUE)`	Histogram of relative frequencies.
`rug(data)`	1D-plot
`hist(data, breaks=30)`	Specify subdivisions of histogram.

Creating Vectors

`c(2, 4, 6)`	Join elements into a vector
`2:6`	An integer sequence (end inclusive!)
`seq(2,3, by=0.5)`	Complex sequence (s. np.linspace)
`rep(1:2, 3)`	Repeat vector
`rep(1:2, 3:4)`	Repeat each element

Vecotr Functions

`sort(x)`	Return x sorted.
`rev(x)`	Return x reversed.
`table(x)`	See counts of values.
`unique(x)`	See unique values.
`length(x)`	Length of x.

Selecting Vector Elements

By Position

`x[4]`	The fourth element
`x[-4]`	All but the fourth.
`x[2:4]`	Elements two to four
`x[-(2:4)]`	All elements except 2 to four
`x[c(1, 5)]`	Elements one and five.

By Value

`x[x == 10]`	All elements equal to 10
`x[x < 10]`	All elements less than 10.
`x[x %in% c(1, 2, 5)]`	Elements in the given set.

Named Vectors

`x['apple']`	Element with name 'apple'.

Runs Test of Randomness

`rle(x)`	Compute the lengths and values of runs of equal values in a vector .
`rle(x) $le ngths`	Vector containing the length of each run.
`rle(x) $values`	Vector of the same length as lengths with the corresponding values.