

## Appendix D - Most essential R commands

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This is the short collection of the most frequently used R commands based on the analysis of almost 500 scripts (Figure 3.4.2). For the longer list, check R reference card attached to this book, or R help and manuals.

**?**

Help

**<-**

Assign right to left

**[**

Select part of object

**\$**

Call list element by name

**abline()**

Add the line from linear regression model

**aov()**

Analysis of variation

**as.character()**

Convert to text

**as.numeric()**

Convert to number

**as.matrix()**

Convert to matrix

**boxplot()**

Boxplot

**c()**

Join into vector

**cbind()**

Join columns into matrix

**chisq.test()**

Chi-squared test

**cor()**

Correlation of multiple variables

**colSums()**

Sum every column

**cor.test()**

Correlation test

**data.frame()**

Make data frame

**dev.off()**

Close current graphic device

**dotchart()**

Replacement for “pie” chart

**example()**

Call example of command

**factor()**

Convert to factor, modify factor

**file.show()**

Show file from disk

**function() ...**

Make new function

**head()**

Show first rows of data frame

**help()**

Help

**hist()**

Histogram

**ifelse()**

Vectorized condition

**legend()**

Add legend to the plot

**library()**

Load the installed package

**length()**

Length (number of items) of variable

**list()**

Make list object

**lines()**

Add lines to the plot

**lm()**

Linear model

**log()**

Natural logarithm

**log10()**

Decimal logarithm

**max()**

Maximal value

**mean()**

Mean

**median()**

Median

**min()**

Minimal value

**NA**

Missed value

**na.omit**

Skip missing values

**names()**

Show names of elements

**nrow()**

How many rows?

**order()**

Create order of objects

**paste()**

Concatenate two strings

**par()**

Set graphic parameters

**pdf()**

Open PDF device

**plot()**

Graph

**points()**

Add points (dots) to the plot

**predict()**

Predict values

**q("no")**

Quit R and do not save workspace

**qqnorm(); qqline()**

Visual check for the normality

**rbind()**

Join into matrix by rows

**read.table()**

Read data file from disk into R

**rep()**

Repeat

**sample()**

Random selection

**savehistory()**

Save history of commands (does not work under macOS GUI)

**scale()**

Make all variables comparable

**sd()**

Standard deviation

**source()**

Run script

**str()**

Structure of object

**summary()**

Explain the object, e.g., return main description statistics

**t()**

Transpose matrix (rotate on right angle)

**t.test()**

Student test (t-test)

**table()**

Make contingency table

**text()**

Add text to the plot

**url.show()**

Show the Internet file

**wilcox.test()**

Wilcoxon test

**write.table()**

Write to disk