

R Basics in One Page

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Preparing

Ctrl + L	Clear screen
rm(list=ls(all=TRUE))	Clear memory
install.packages("")	Install packages
library(foreign)	Load packages
getwd()	Get directory
setwd()	Set directory

Loading/Writing Data

load()	Load R datasets
read.table(".txt")	Load txt file
read.csv(".csv")	Load csv file
read.dta(".dta")	Load STATA file
write.table()	Write txt file
write.csv("filename")	Write csv file

A First Look at Data

head()	First part of data
summary()	Summarize data
View()	Browse
dim()	Get dimensions
table()	Tabulation

Making "Data" By Yourself

c()	Combine elements
rep(1234, times=3)	Replicate elements
seq(0,100,by=10)	Get sequences
matrix()	Make matrices

Transforming Data

is.logical()	Logical type?
is.numeric()	Numeric type?
is.character()	Character type?
is.data.frame()	Dat a frame?
as.logical()	→ logical type
as.numeric()	→ numeric type
as.character()	→ character type
as.data.frame()	→ data frame

Math functions

mean()	Mean
sd()	Standard deviation
var()	Variance
cor()	Correlation
cov()	Covariance
median()	Median
quantile()	Quantile
min()	Minimum
max()	Maximum
sum()	Summation
prod()	Production of vectors
sqrt()	Take square root
log()	Take log
abs()	Take absolute value

Useful functions

length()	Length of an object
unique()	Extract unique elements
sort()	Sort vectors
order()	Get the order of the vectors.
round()	Rounding
subset()	Get a subset of the object

Making Figures

par(mfcol=c(2,7))	Set graphical parameters
plot()	Call x-y plot
hist()	Histograms
lines()	Add plots
abline()	Add lines
segments(x0,y0,x1,y1)	Add segments
points()	Add points
legend()	Add legend
textxy(x,y,labs=)	Add text
expression(beta[1])	Greek letters
pdf("",width=3,height=6)	Save in pdf files
png("")	Save in png files
dev.off()	Shut down graphics