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Linear Modelling Class' Cheat Sheet

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General

help()	Display the help page for a particular R function
?foo	Display the help page of the R object 'foo'
summary()	Show information about an object - context dependent
library()	Load a non-standard library into R
tapply()	Apply a function to each element of a vector

Plot

boxplot()	Display a boxplot
hist()	Display a histogram
plot()	Plot data, or display visual analysis of an object
lines()	Draw dot-to-dot lines onto an existing plot
abline()	Draw a line onto an existing plot

ANOVA

aov()	Homoscedastic linear model with categorical predictors
oneway.test()	Heteroscedastic linear model with categorical predictors
kruskal.test()	Rank-based linear model with a categorical predictor
t.test()	Homoscedastic (Student's test) and heteroscedastic (Welch's test) linear model with a binary predictor
qqnorm()	Normal quantile-quantile plot
shapiro.test()	Test of normality (distribution)
bartlett.test()	Test of equality of variance between groups
TukeyHSD()	Pairwise comparison of all means with Tukey multiplicity correction

Simple Regression

cor()	Correlation between between 2 variables
cor.test()	Test for (linear or rank) association between 2 variables
lm()	Homoscedastic linear model fit
residuals()	Extract residuals from an object of class 'lm' (linear model)
fitted()	Extract fitted values from an object of class 'lm'
confint()	Return confidence intervals on parameter estimates from an object of class 'lm'

Multiple Regression

AIC()	Akaike's information criterion (AIC) for a fitted model
stepAIC()	AIC based stepwise model selection
nls()	Non-linear least squares fit

Generalised Linear Models

install.packages()	Locally install R packages
glm()	Generalised linear model fit
gamlss()	Generalised linear and additive model fit
anova()	Comparison of embedded (LM or GLM) models
chisq.test()	Pearson's chi-square test
prop.test()	Test of equality of proportions

Time Series

acf()	Auto-correlation function
pacf()	Partial auto-correlation function
arima()	ARIMA time series model fit