Curso

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UFG1

# Instalando pacote

if (!require("vegan")) install.packages("vegan")

## Loading required package: vegan

## Warning: package 'vegan' was built under R version 3.5.2

## Loading required package: permute

## Warning: package 'permute' was built under R version 3.5.3

## Loading required package: lattice

## Warning: package 'lattice' was built under R version 3.5.2

## This is vegan 2.5-4

if (!require("knitr")) install.packages("knitr")

## Loading required package: knitr

## Warning: package 'knitr' was built under R version 3.5.3

# Organizando um texto

~~Eu~~ sou uma *trouxa* muito **grande**

# Materiais e Métodos

data("mtcars")  
  
lm(mpg ~carb, mtcars)

##   
## Call:  
## lm(formula = mpg ~ carb, data = mtcars)  
##   
## Coefficients:  
## (Intercept) carb   
## 25.872 -2.056

summary(lm(mpg ~carb, mtcars))

##   
## Call:  
## lm(formula = mpg ~ carb, data = mtcars)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -7.250 -3.316 -1.433 3.384 10.083   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)   
## (Intercept) 25.8723 1.8368 14.085 9.22e-15 \*\*\*  
## carb -2.0557 0.5685 -3.616 0.00108 \*\*   
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 5.113 on 30 degrees of freedom  
## Multiple R-squared: 0.3035, Adjusted R-squared: 0.2803   
## F-statistic: 13.07 on 1 and 30 DF, p-value: 0.001084

# Resultados

A função kable retorna uma tabela organizada

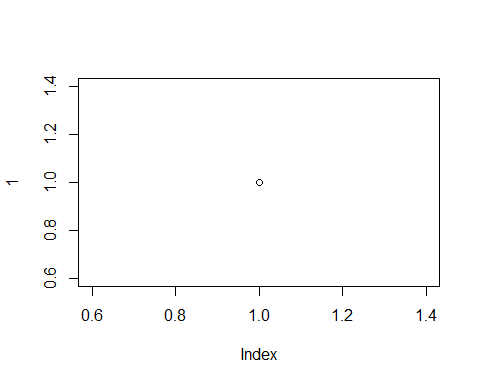
Se quiser colocar o título na tabela é só escrever o texto, pedir para esconder o código com o *echo=FALSE, eval=T*

data("mtcars")  
kable(mtcars)

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | mpg | cyl | disp | hp | drat | wt | qsec | vs | am | gear | carb |
| Mazda RX4 | 21.0 | 6 | 160.0 | 110 | 3.90 | 2.620 | 16.46 | 0 | 1 | 4 | 4 |
| Mazda RX4 Wag | 21.0 | 6 | 160.0 | 110 | 3.90 | 2.875 | 17.02 | 0 | 1 | 4 | 4 |
| Datsun 710 | 22.8 | 4 | 108.0 | 93 | 3.85 | 2.320 | 18.61 | 1 | 1 | 4 | 1 |
| Hornet 4 Drive | 21.4 | 6 | 258.0 | 110 | 3.08 | 3.215 | 19.44 | 1 | 0 | 3 | 1 |
| Hornet Sportabout | 18.7 | 8 | 360.0 | 175 | 3.15 | 3.440 | 17.02 | 0 | 0 | 3 | 2 |
| Valiant | 18.1 | 6 | 225.0 | 105 | 2.76 | 3.460 | 20.22 | 1 | 0 | 3 | 1 |
| Duster 360 | 14.3 | 8 | 360.0 | 245 | 3.21 | 3.570 | 15.84 | 0 | 0 | 3 | 4 |
| Merc 240D | 24.4 | 4 | 146.7 | 62 | 3.69 | 3.190 | 20.00 | 1 | 0 | 4 | 2 |
| Merc 230 | 22.8 | 4 | 140.8 | 95 | 3.92 | 3.150 | 22.90 | 1 | 0 | 4 | 2 |
| Merc 280 | 19.2 | 6 | 167.6 | 123 | 3.92 | 3.440 | 18.30 | 1 | 0 | 4 | 4 |
| Merc 280C | 17.8 | 6 | 167.6 | 123 | 3.92 | 3.440 | 18.90 | 1 | 0 | 4 | 4 |
| Merc 450SE | 16.4 | 8 | 275.8 | 180 | 3.07 | 4.070 | 17.40 | 0 | 0 | 3 | 3 |
| Merc 450SL | 17.3 | 8 | 275.8 | 180 | 3.07 | 3.730 | 17.60 | 0 | 0 | 3 | 3 |
| Merc 450SLC | 15.2 | 8 | 275.8 | 180 | 3.07 | 3.780 | 18.00 | 0 | 0 | 3 | 3 |
| Cadillac Fleetwood | 10.4 | 8 | 472.0 | 205 | 2.93 | 5.250 | 17.98 | 0 | 0 | 3 | 4 |
| Lincoln Continental | 10.4 | 8 | 460.0 | 215 | 3.00 | 5.424 | 17.82 | 0 | 0 | 3 | 4 |
| Chrysler Imperial | 14.7 | 8 | 440.0 | 230 | 3.23 | 5.345 | 17.42 | 0 | 0 | 3 | 4 |
| Fiat 128 | 32.4 | 4 | 78.7 | 66 | 4.08 | 2.200 | 19.47 | 1 | 1 | 4 | 1 |
| Honda Civic | 30.4 | 4 | 75.7 | 52 | 4.93 | 1.615 | 18.52 | 1 | 1 | 4 | 2 |
| Toyota Corolla | 33.9 | 4 | 71.1 | 65 | 4.22 | 1.835 | 19.90 | 1 | 1 | 4 | 1 |
| Toyota Corona | 21.5 | 4 | 120.1 | 97 | 3.70 | 2.465 | 20.01 | 1 | 0 | 3 | 1 |
| Dodge Challenger | 15.5 | 8 | 318.0 | 150 | 2.76 | 3.520 | 16.87 | 0 | 0 | 3 | 2 |
| AMC Javelin | 15.2 | 8 | 304.0 | 150 | 3.15 | 3.435 | 17.30 | 0 | 0 | 3 | 2 |
| Camaro Z28 | 13.3 | 8 | 350.0 | 245 | 3.73 | 3.840 | 15.41 | 0 | 0 | 3 | 4 |
| Pontiac Firebird | 19.2 | 8 | 400.0 | 175 | 3.08 | 3.845 | 17.05 | 0 | 0 | 3 | 2 |
| Fiat X1-9 | 27.3 | 4 | 79.0 | 66 | 4.08 | 1.935 | 18.90 | 1 | 1 | 4 | 1 |
| Porsche 914-2 | 26.0 | 4 | 120.3 | 91 | 4.43 | 2.140 | 16.70 | 0 | 1 | 5 | 2 |
| Lotus Europa | 30.4 | 4 | 95.1 | 113 | 3.77 | 1.513 | 16.90 | 1 | 1 | 5 | 2 |
| Ford Pantera L | 15.8 | 8 | 351.0 | 264 | 4.22 | 3.170 | 14.50 | 0 | 1 | 5 | 4 |
| Ferrari Dino | 19.7 | 6 | 145.0 | 175 | 3.62 | 2.770 | 15.50 | 0 | 1 | 5 | 6 |
| Maserati Bora | 15.0 | 8 | 301.0 | 335 | 3.54 | 3.570 | 14.60 | 0 | 1 | 5 | 8 |
| Volvo 142E | 21.4 | 4 | 121.0 | 109 | 4.11 | 2.780 | 18.60 | 1 | 1 | 4 | 2 |

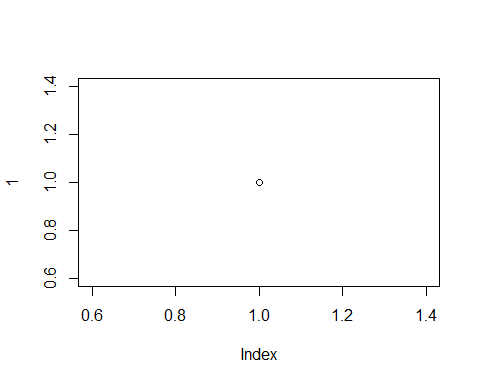
A cerquinha abaixo não mostra nem código nem o plot

A cerquinha abaixo mostra o plote, mas não mostra o código



A cerquinha a baixo mostra o código e o plot

plot(1)



# Discussão

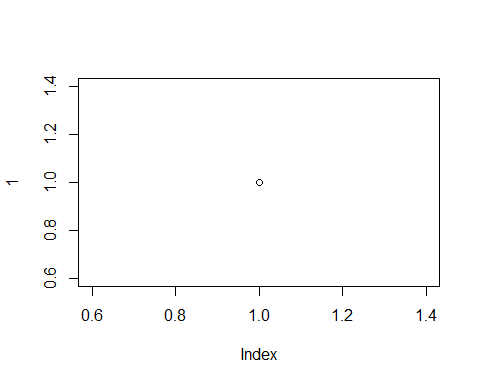
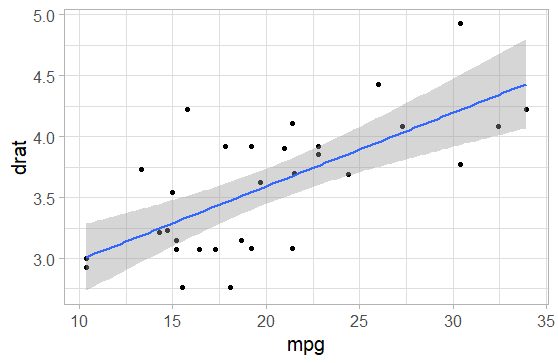


Figura 1

# Inserir figura

Para chamar uma que está fora do R figura usa-se o seguinte código:



# Organizando uma tabela

A função kable retorna uma tabela organizada

Se quiser colocar o título na tabela é só escrever o texto, pedir para esconder o código com o *echo=FALSE, eval=T*

Tabela 1. Modelos de carros antigos e suas características

data("mtcars")  
kable(mtcars)

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | mpg | cyl | disp | hp | drat | wt | qsec | vs | am | gear | carb |
| Mazda RX4 | 21.0 | 6 | 160.0 | 110 | 3.90 | 2.620 | 16.46 | 0 | 1 | 4 | 4 |
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| Merc 230 | 22.8 | 4 | 140.8 | 95 | 3.92 | 3.150 | 22.90 | 1 | 0 | 4 | 2 |
| Merc 280 | 19.2 | 6 | 167.6 | 123 | 3.92 | 3.440 | 18.30 | 1 | 0 | 4 | 4 |
| Merc 280C | 17.8 | 6 | 167.6 | 123 | 3.92 | 3.440 | 18.90 | 1 | 0 | 4 | 4 |
| Merc 450SE | 16.4 | 8 | 275.8 | 180 | 3.07 | 4.070 | 17.40 | 0 | 0 | 3 | 3 |
| Merc 450SL | 17.3 | 8 | 275.8 | 180 | 3.07 | 3.730 | 17.60 | 0 | 0 | 3 | 3 |
| Merc 450SLC | 15.2 | 8 | 275.8 | 180 | 3.07 | 3.780 | 18.00 | 0 | 0 | 3 | 3 |
| Cadillac Fleetwood | 10.4 | 8 | 472.0 | 205 | 2.93 | 5.250 | 17.98 | 0 | 0 | 3 | 4 |
| Lincoln Continental | 10.4 | 8 | 460.0 | 215 | 3.00 | 5.424 | 17.82 | 0 | 0 | 3 | 4 |
| Chrysler Imperial | 14.7 | 8 | 440.0 | 230 | 3.23 | 5.345 | 17.42 | 0 | 0 | 3 | 4 |
| Fiat 128 | 32.4 | 4 | 78.7 | 66 | 4.08 | 2.200 | 19.47 | 1 | 1 | 4 | 1 |
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| Toyota Corolla | 33.9 | 4 | 71.1 | 65 | 4.22 | 1.835 | 19.90 | 1 | 1 | 4 | 1 |
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| Volvo 142E | 21.4 | 4 | 121.0 | 109 | 4.11 | 2.780 | 18.60 | 1 | 1 | 4 | 2 |

Numéro de linhas e colunas

nrow(mtcars)

## [1] 32

ncol(mtcars)

## [1] 11

# Como colocar citações e organizar referências

Estou citando fulano (Heberlein *et al.* 2016).

Segundo Faculty *et al.* (2015), isso pode acontecer

Estou citando varias pessoas que fizeram isso (Akino *et al.* 1999; Ahmed *et al.* 2009; Allen *et al.* 2016; Fallows *et al.* 2016)

# Referências

Ahmed, S., Compton, S.G., Butlin, R.K. & Gilmartin, P.M. (2009). Wind-borne insects mediate directional pollen transfer between desert fig trees 160 kilometers apart.

Akino, T., Knapp, J.J., Thomas, J.A., Elmes, G.W., Akino, T. & Knapp, J.J. *et al.* (1999). Chemical mimicry and host specificity in the butterfly Maculinea rebeli , a social parasite of Myrmica ant colonies Chemical mimicry and host speci city in the butter ¯ y Maculinea rebeli , a social parasite of Myrmica ant colonies.

Allen, M.L., Wittmer, H.U., Setiawan, E., Jaffe, S. & Marshall, A.J. (2016). Scent marking in Sunda clouded leopards ( Neofelis diardi ): novel observations close a key gap in understanding felid communication behaviours. *Nature Publishing Group*, 1–9.

Faculty, T.M.I.T., Arndt, C., Origins, M., Beetle, B. & Pulsation, E.-i.D.S. (2015). Mechanistic origins of bombardier beetle (Brachinini) explosion-induced defensive spray pulsation.

Fallows, C., Fallows, M. & Hammerschlag, N. (2016). Effects of lunar phase on predator-prey interactions between white shark ( Carcharodon carcharias ) and Cape fur seals ( Arctocephalus pusillus pusillus ). *Environmental Biology of Fishes*, 805–812.

Heberlein, M.T.E., Turner, D.C. & Range, F. (2016). A comparison between wolves , Canis lupus , and dogs , Canis familiaris , in showing behaviour towards humans fi a Vir a, 122, 59–66.