Test_class.R

Usuario

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# Test en clase


# Base de datos -------------------------------------------------------

esp.url <-
paste0("https://raw.githubusercontent.com/Marimari02/PrincipiosEstadistica2021/main/ebanos.csv")

tabla <- read.csv(esp.url)
str(tabla)

## 'data.frame':    164 obs. of  2 variables:
##  $ diametro: num  31.2 35.2 15.5 30.6 32.9 17.2 32.1 10.4 46.8 26.4 ...
##  $ altura  : num  13.8 11.3 4 13.3 17.8 7.8 18.3 8 19.5 7 ...

# Caracteristicas descriptivas  ---------------------------------------

mean(tabla$altura)

## [1] 11.88537

median(tabla$altura)

## [1] 12

var(tabla$altura)

## [1] 20.95181

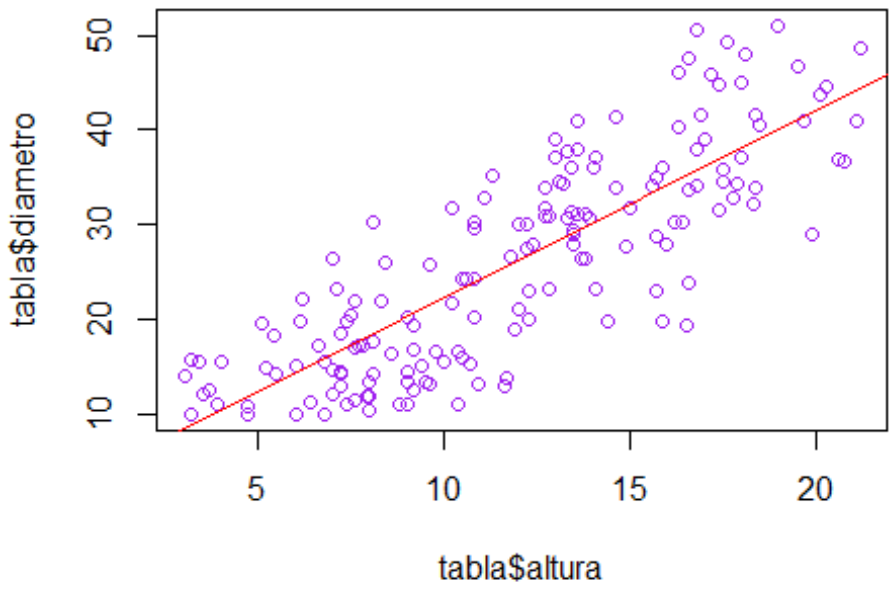
sd(tabla$altura)

## [1] 4.577315

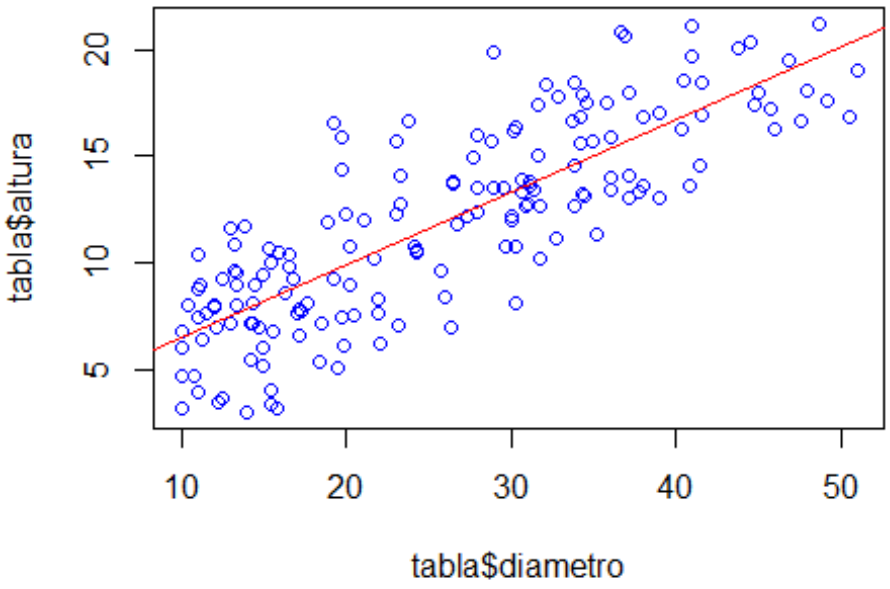
summary(tabla$altura)

##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##    3.00    8.00   12.00   11.89   15.75   21.20
```

```r
# diametro
mean(tabla$diametro)

## [1] 25.96829

median(tabla$diametro)

## [1] 25.9

var(tabla$diametro)

## [1] 121.8856

sd(tabla$diametro)

## [1] 11.04018

summary(tabla$diametro)

##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##   10.00   15.57   25.90   25.97   34.23   51.00

# Grafico de dispersion ----------------------------------------------
--

plot(tabla$altura, tabla$diametro, col = "purple")
abline(lm(tabla$diametro~ tabla$altura), col = "red")
```



```r
plot(tabla$diametro, tabla$altura, col = "blue")
abline(lm(tabla$altura~ tabla$diametro), col = "red")
```




```r
# Determinacion coeficiente de correlacion  ------------------------------
--

cor.test(tabla$altura, tabla$diametro)

##
##  Pearson's product-moment correlation
##
## data:  tabla$altura and tabla$diametro
## t = 18.354, df = 162, p-value < 2.2e-16
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
##  0.7648115 0.8659458
## sample estimates:
##       cor
## 0.8217467

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# P-vakue es menor que alfa 0.05 por lo tanto tenemos una variable
alternativa H1
```