# Script_4.R

Usuario

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```r
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# Importar datos de Cedro Rojo -------------------------------------------
setwd("C:/Tarea/108-Estadistica/Clases")
CR <- read.csv("cedro_rojo.csv", header = TRUE)

summary(CR)
```

```
##     diametro          altura
##  Min.   : 9.028   Min.   :10.27
##  1st Qu.:11.376   1st Qu.:16.70
##  Median :12.249   Median :19.06
##  Mean   :12.524   Mean   :18.91
##  3rd Qu.:13.369   3rd Qu.:20.68
##  Max.   :18.449   Max.   :28.16
```

```r
# Una muestra ------------------------------------------------------------

# Media teoretica de la variable Diametro establecida por CONAFOR
# para el cedro rojo es igual a 13

# Comparar la media observada de la variable diametro para las
# plantulas producidas en vivero 12.524

#"mu" debe ser igual a la variable teoretica
# el valor de alfa establecido es 0.05

t.test(CR$diametro, mu=13)
```

```
##
##  One Sample t-test
##
## data:  CR$diametro
## t = -3.5874, df = 166, p-value = 0.0004391
## alternative hypothesis: true mean is not equal to 13
## 95 percent confidence interval:
##  12.26196 12.78595
## sample estimates:
## mean of x
##  12.52396
```

```r
# se acepta la alternativa

t.test(CR$diametro, mu=12.7)
```

```
## 
##  One Sample t-test
## 
## data:  CR$diametro
## t = -1.3266, df = 166, p-value = 0.1864
## alternative hypothesis: true mean is not equal to 12.7
## 95 percent confidence interval:
##   12.26196 12.78595
## sample estimates:
## mean of x
##   12.52396
```

```r
#se acepta la nula

t.test(CR$altura, mu=20)
```

```
## 
##  One Sample t-test
## 
## data:  CR$altura
## t = -4.6803, df = 166, p-value = 5.918e-06
## alternative hypothesis: true mean is not equal to 20
## 95 percent confidence interval:
##   18.45035 19.36987
## sample estimates:
## mean of x
##   18.91011
```

```r
#se acepta la hipotesis alternativa

t.test(CR$altura, mu=19)
```

```
## 
##  One Sample t-test
## 
## data:  CR$altura
## t = -0.38601, df = 166, p-value = 0.7
## alternative hypothesis: true mean is not equal to 19
## 95 percent confidence interval:
##   18.45035 19.36987
## sample estimates:
## mean of x
##   18.91011
```

```r
#se acepta la hipotesis nula
```