Script_1.R

toryf

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```
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#Fecha: 09/02/2022
#sesion01: Estadisticas descriptivas


# primera sesion  ------------------------------------------------------

dbh <- 15
h <- 8

#multiplicaciones

dbh*h
```

```
## [1] 120
```

```
dbh^2
```

```
## [1] 225
```

```
log(dbh)
```

```
## [1] 2.70805
```

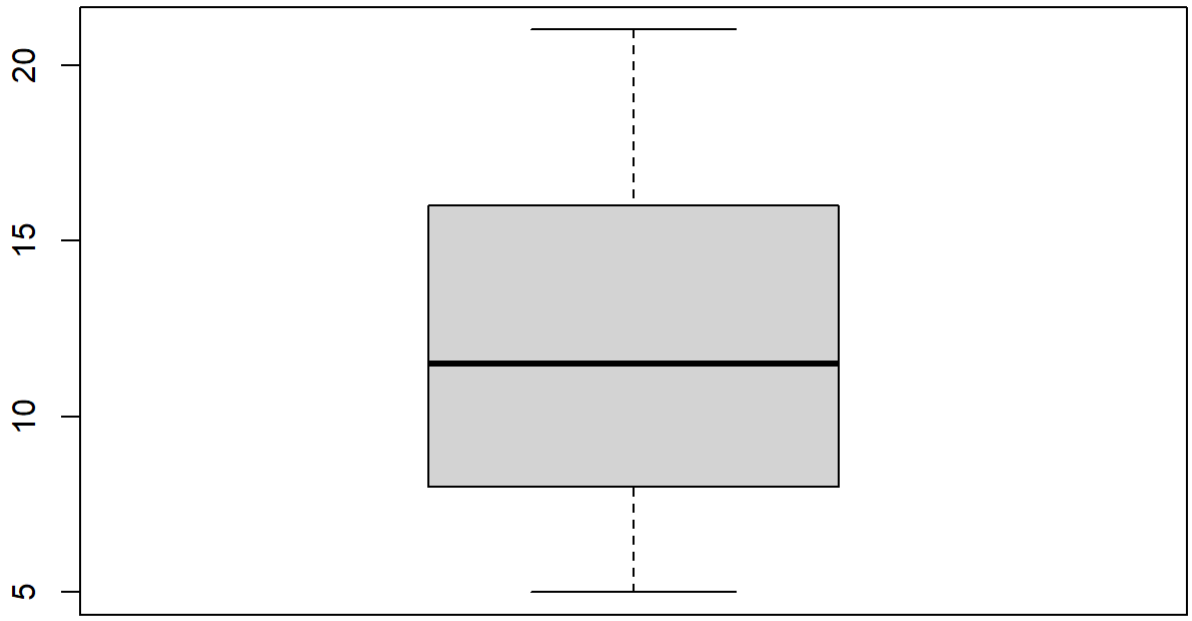
```
dbh <- c(12, 8, 7, 5, 11, 13, 16, 21, 8, 16)


dbh*h
```

```
##  [1]  96  64  56  40  88 104 128 168  64 128
```

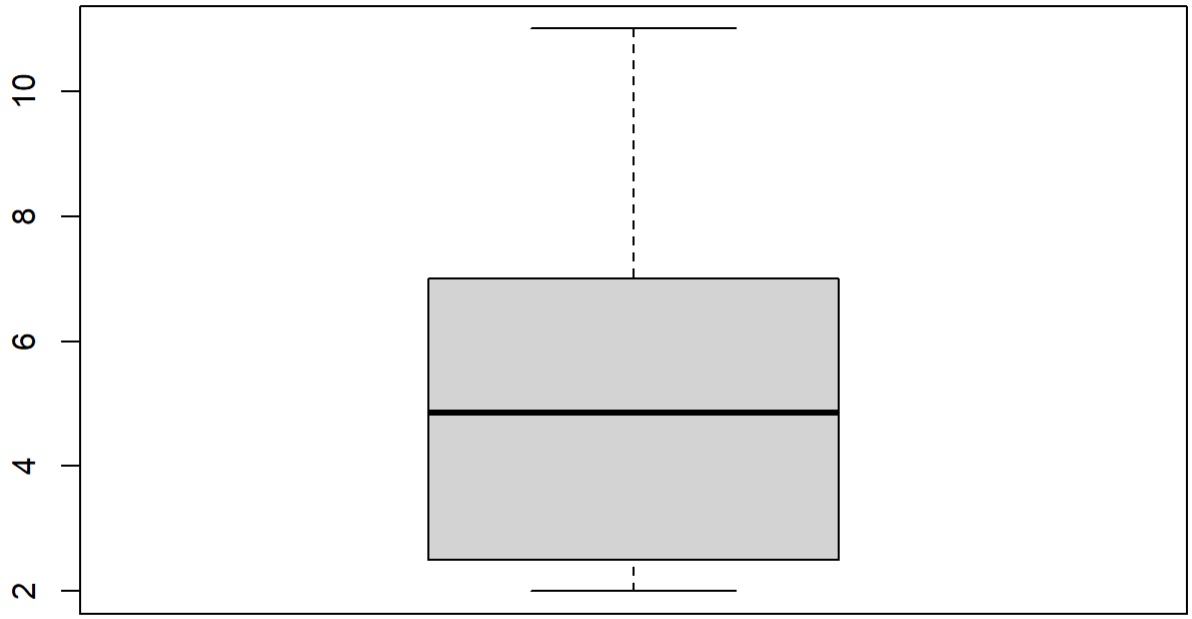
```
h <- c(5, 3, 2.5, 2, 4.7, 5.8, 7, 11, 2.4, 7.2)

dbh*h
```

```
##  [1]  60.0  24.0  17.5  10.0  51.7  75.4 112.0 231.0  19.2 115.2
```

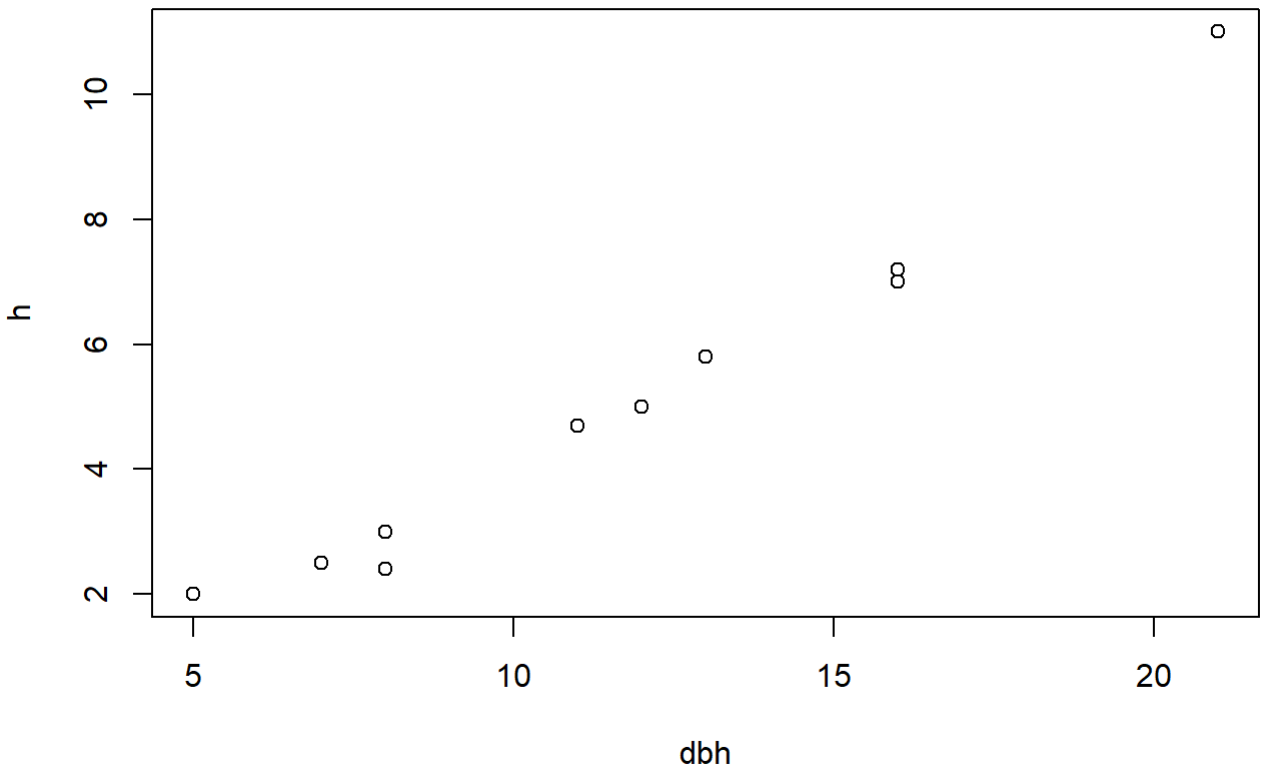
```
# Graficas ----------------------------------------------------------------


#boxplot

boxplot(dbh)
```



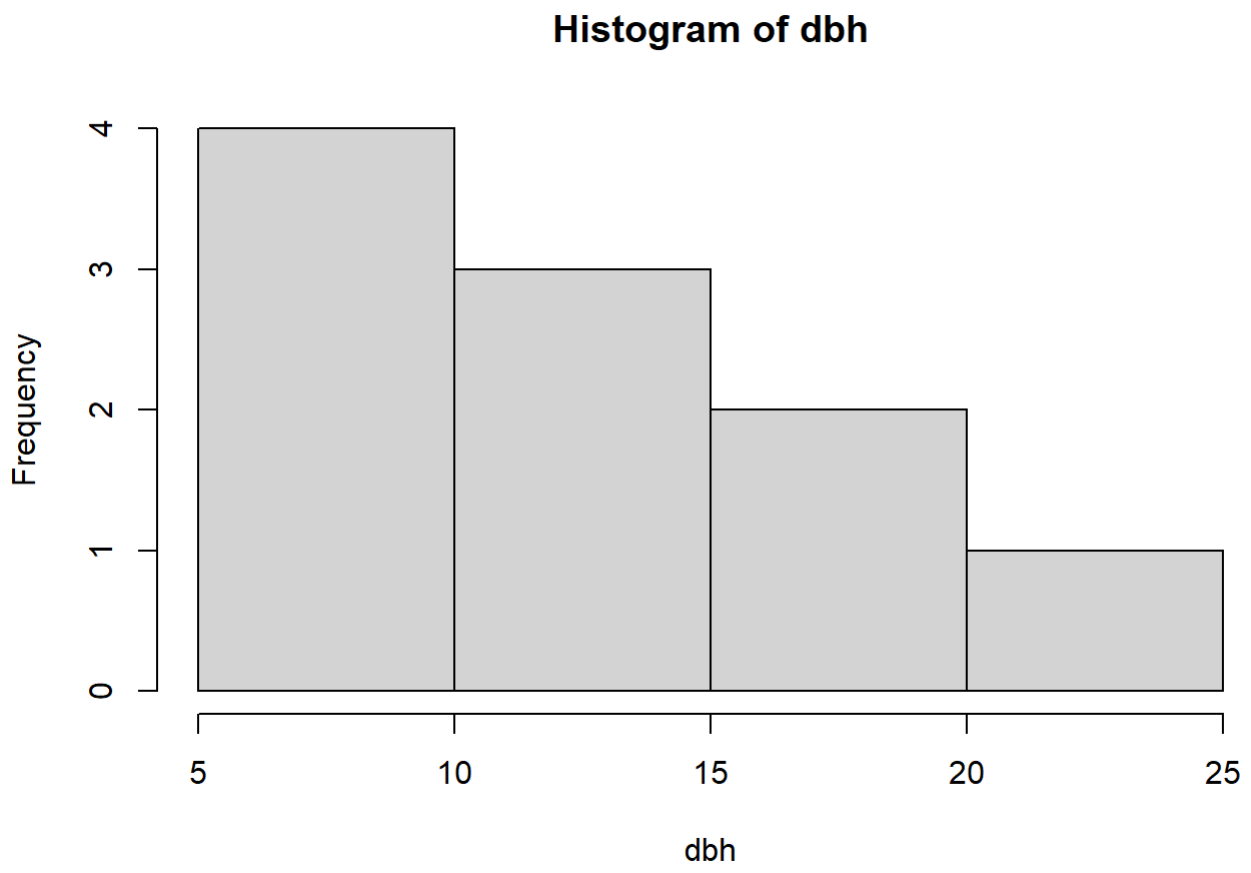

```
boxplot(h)
```




```
plot(dbh, h)
```



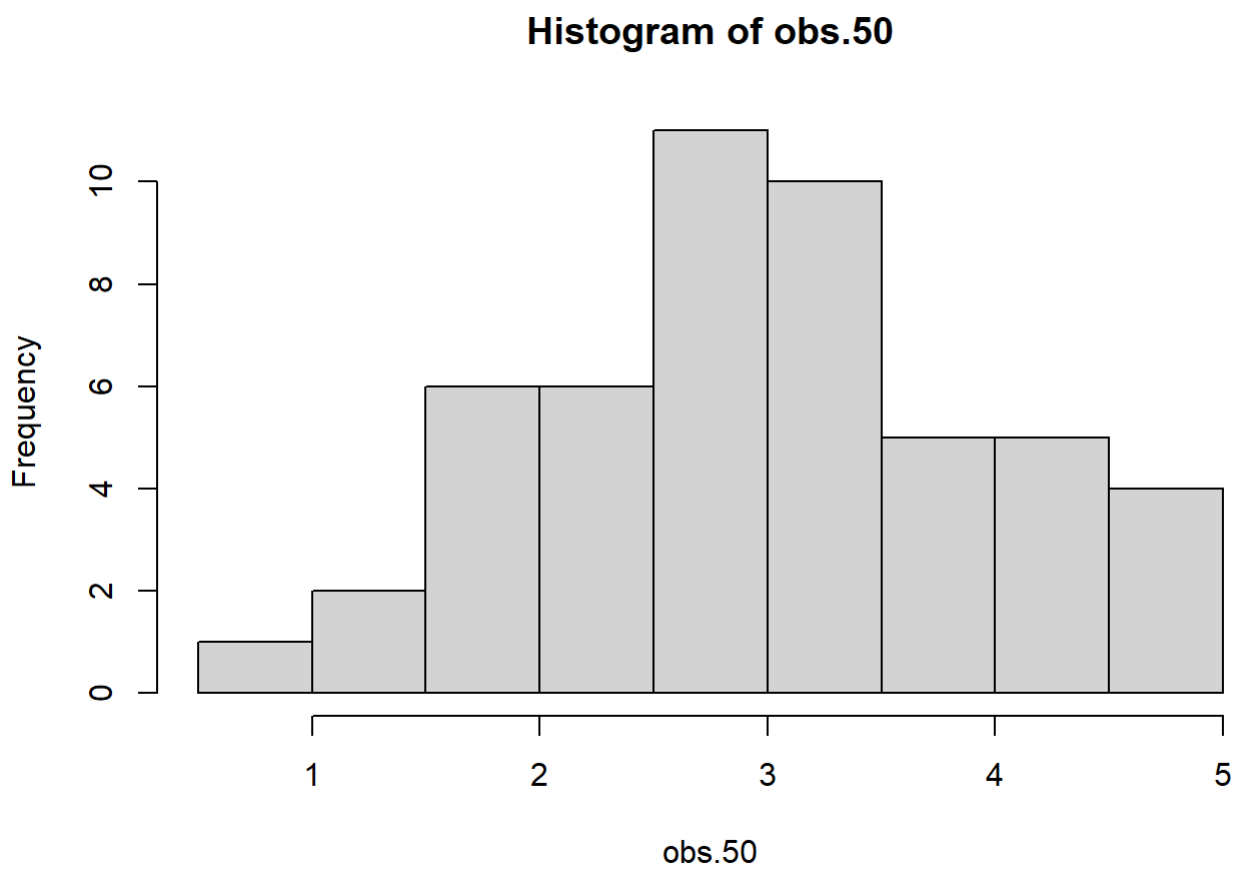

```
hist(dbh)
```



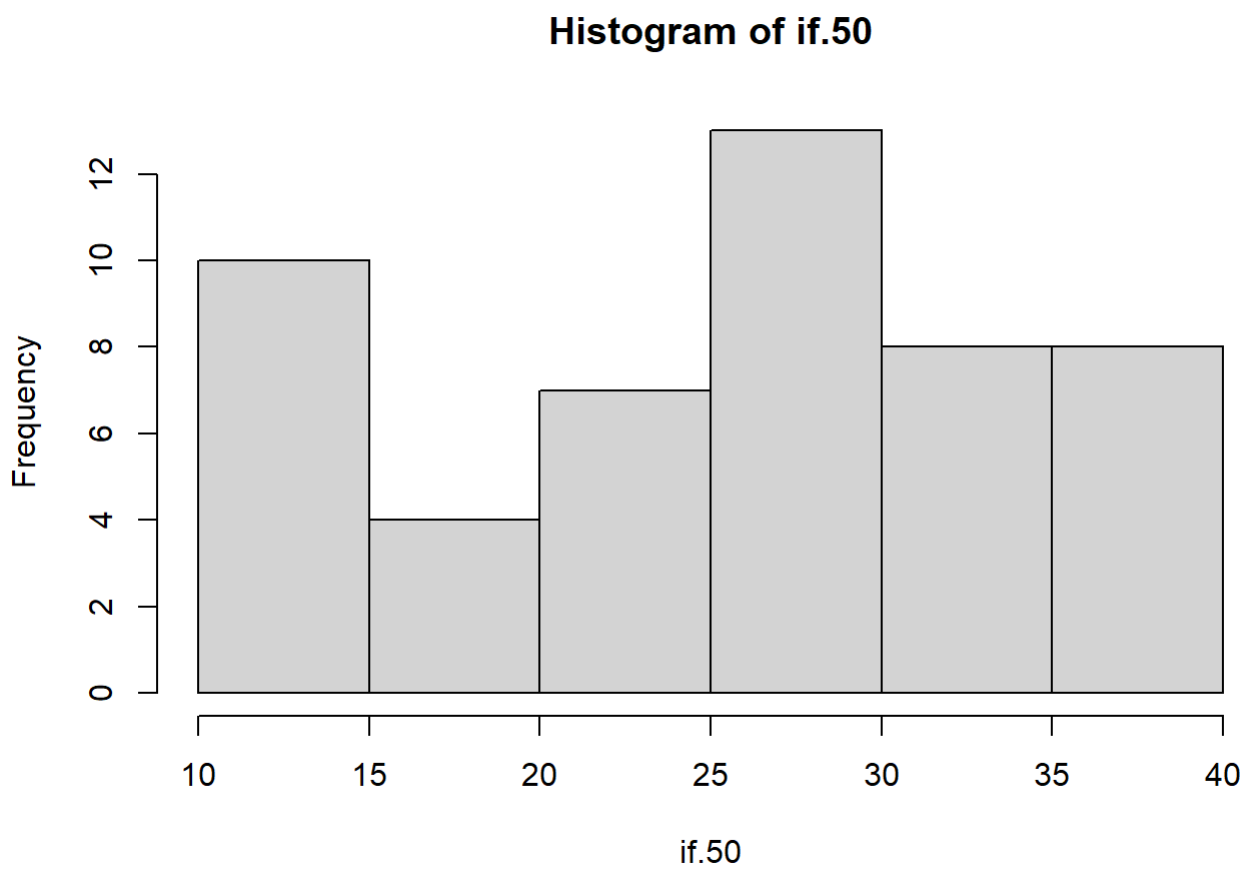

```
set.seed(13)
obs.50 <- rnorm(50, mean =3)
obs.50
```

```
##  [1] 3.5543269 2.7197281 4.7751634 3.1873201 4.1425261 3.4155261 4.2295066
##  [8] 3.2366797 2.6346172 4.1051443 1.9064060 3.4618709 1.6390155 1.1439728
## [15] 2.5601446 2.8060531 4.3964315 3.1006632 2.8855612 3.7022252 3.2625427
## [22] 4.8361633 3.3574024 1.9545899 3.6201841 3.1493545 1.5406831 0.9729562
## [29] 1.9430422 2.2718563 2.9917893 3.8477974 2.6165085 2.4734885 2.7267740
## [36] 2.3942584 2.6671327 2.7584625 2.1372246 2.1530292 3.1003403 4.5900335
## [43] 3.5664949 4.6144795 2.5313498 2.2738986 1.9766610 1.0621845 3.2771473
## [50] 4.4083537
```

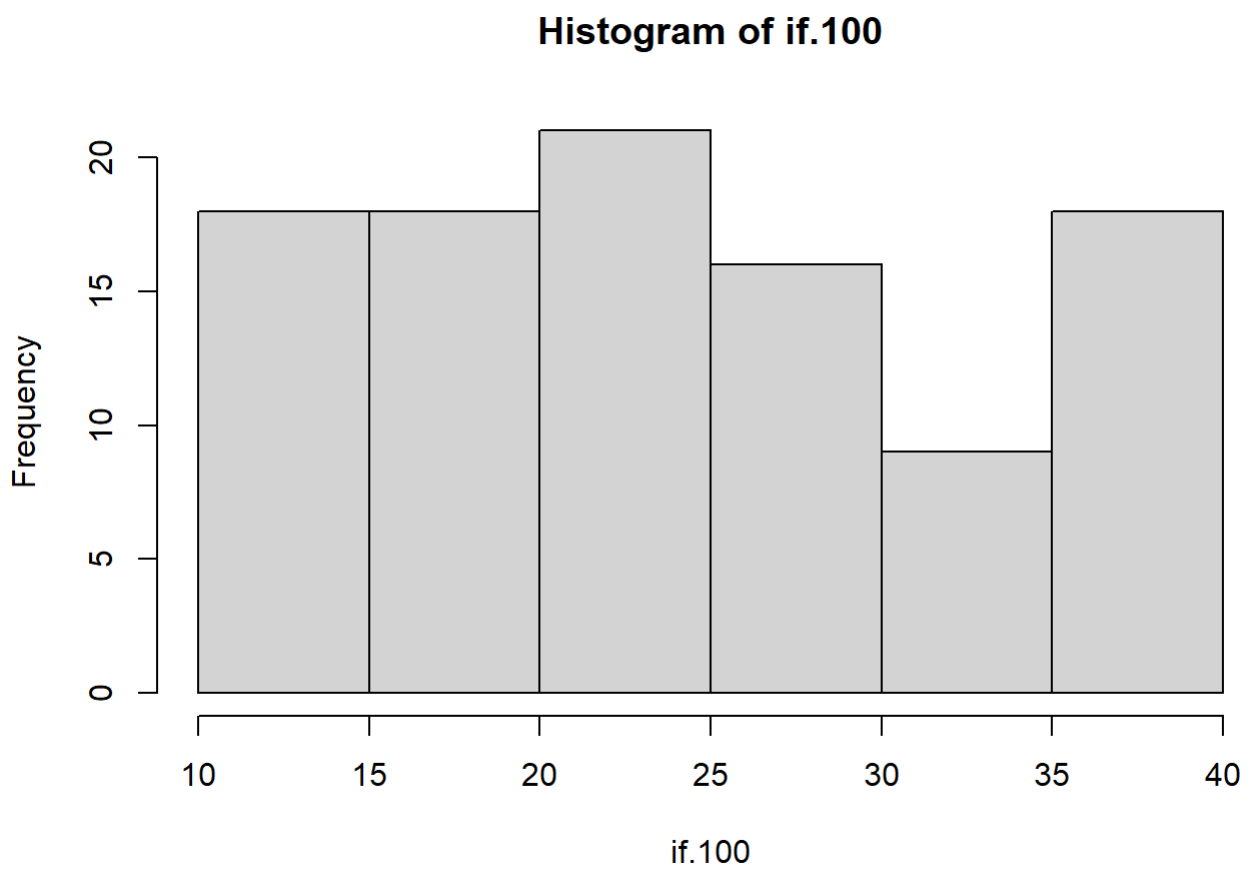
```
hist(obs.50)
```



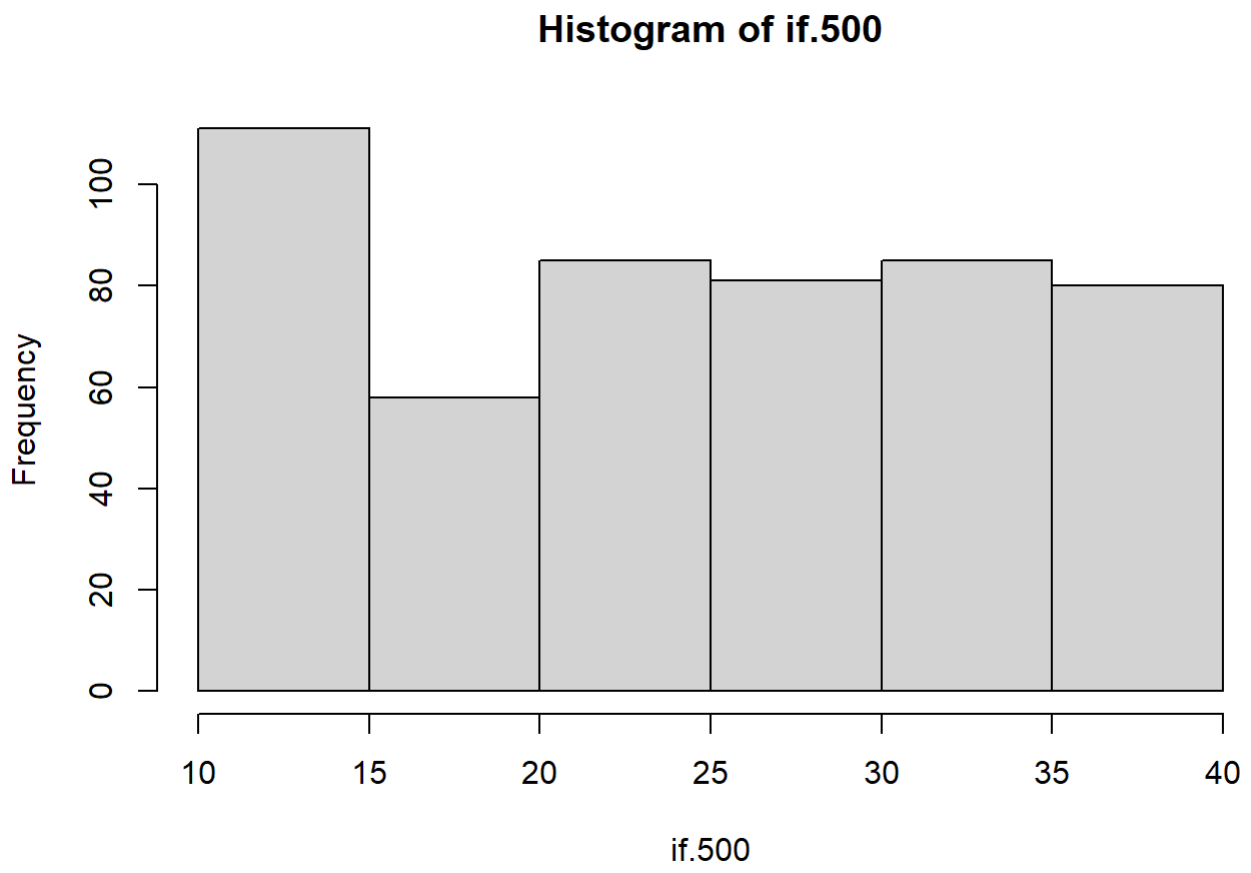

```
set.seed(13)
if.50 <- runif(50, min=10, max=40)
hist(if.50)
```



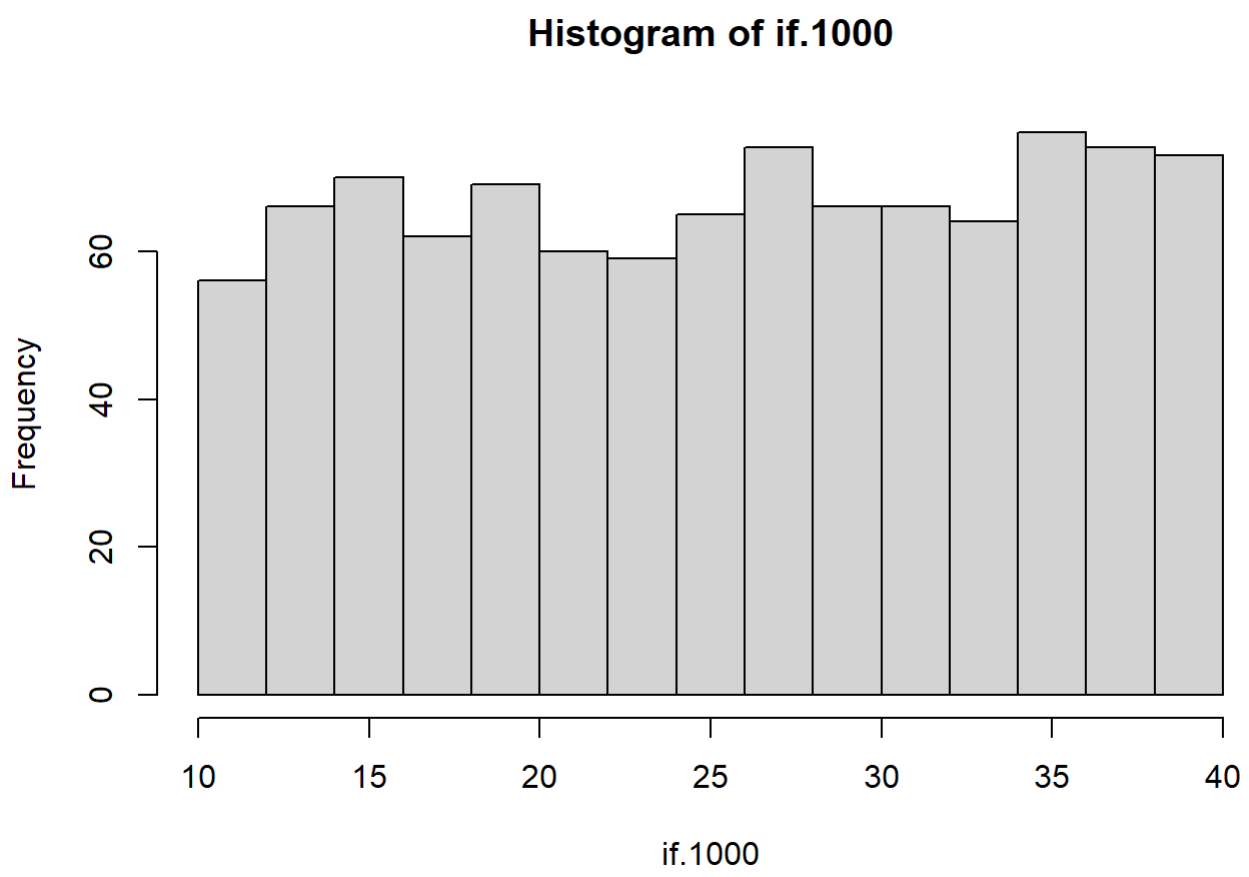

```
if.100 <- runif(100, min=10, max=40)
hist(if.100)
```




```
if.500 <- runif(500, min=10, max=40)
hist(if.500)
```



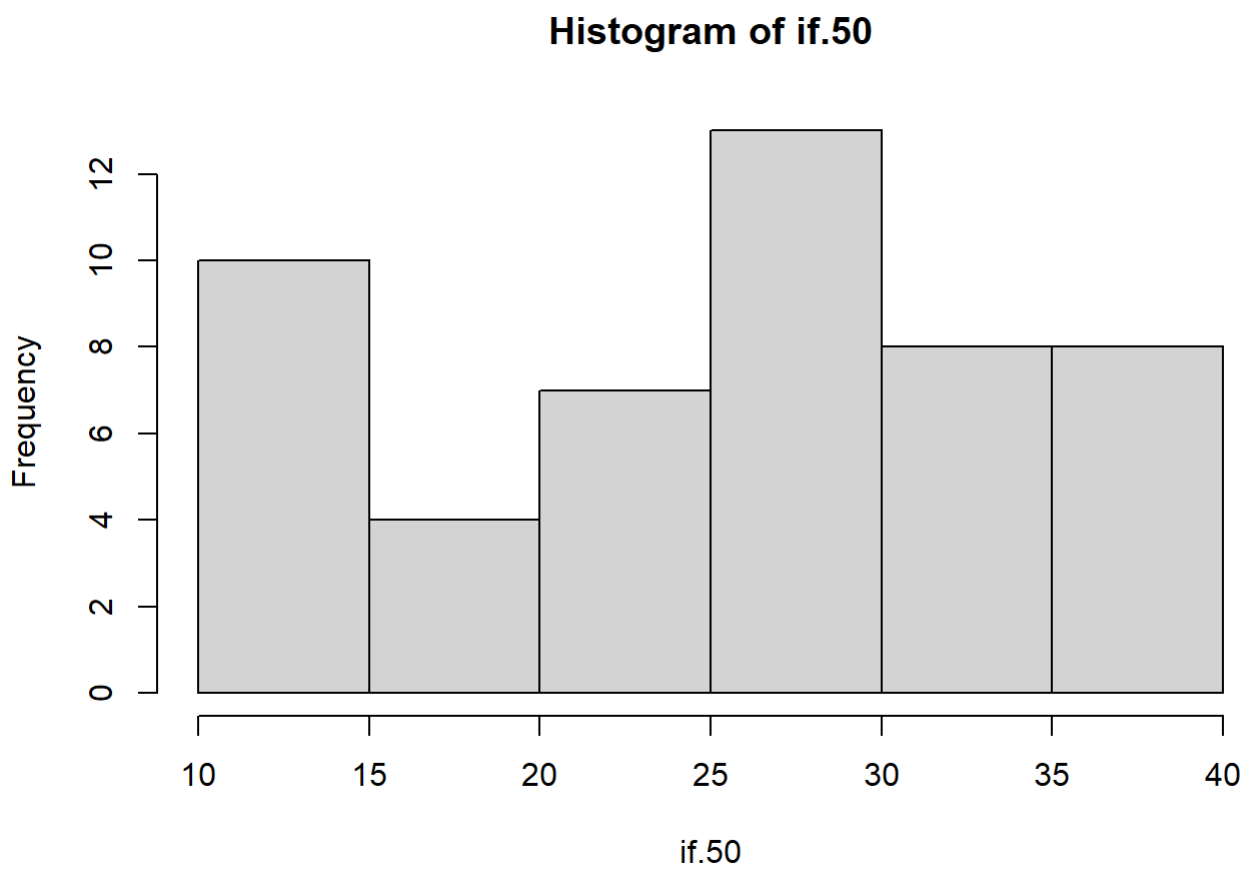

```
if.1000 <- runif(1000, min=10, max=40)
hist(if.1000)
```




```
stem(if.50)
```

```
##
##   The decimal point is 1 digit(s) to the right of the |
##
##   1 | 0112333344
##   1 | 77
##   2 | 001122344
##   2 | 666778888999
##   3 | 000012334
##   3 | 66678899
```

```
hist(if.50)
```



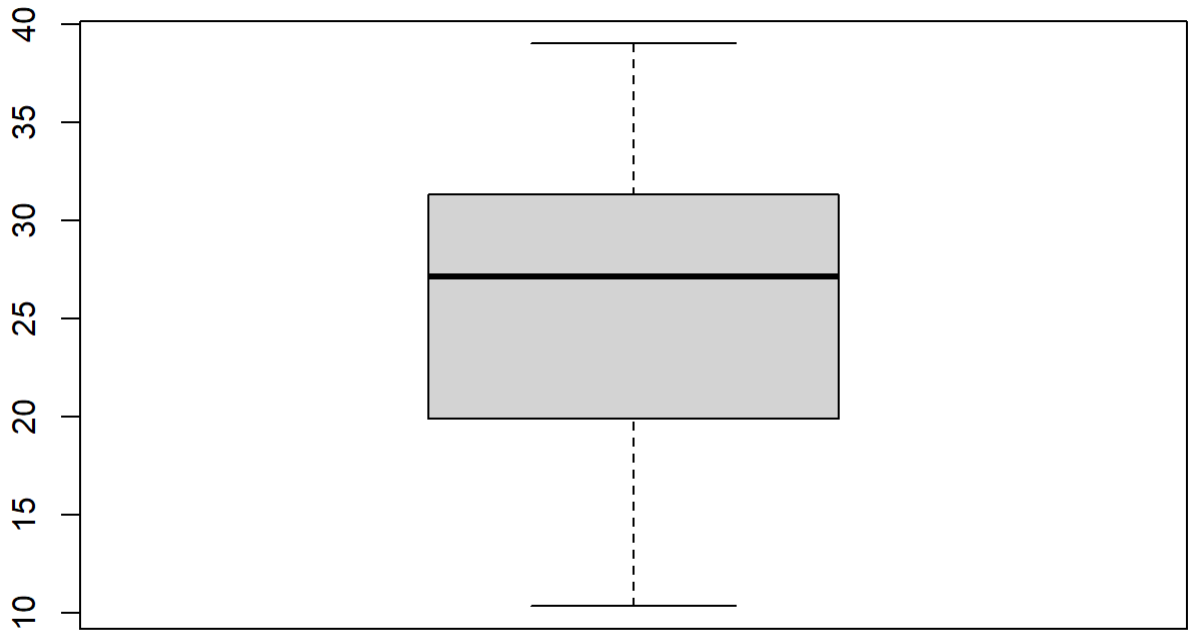

```
# Restricciones ------------------------------------------------------------

#Trabajar con datos del objeto if. 50

mean(if.50)
```

```
## [1] 25.3432
```

```
fivenum(if.50)
```

```
## [1] 10.32800 19.87381 27.10863 31.30967 39.00500
```

```
boxplot(if.50)
```




```
#igual a ==
#diferente a !=
#igual o mayor >=
#igual o menor <=
#mayor que >
#menor que <

if.50 <= median(if.50)
```

```
##  [1] FALSE  TRUE  TRUE  TRUE FALSE  TRUE FALSE FALSE FALSE  TRUE FALSE FALSE
## [13] FALSE  TRUE FALSE  TRUE  TRUE FALSE FALSE FALSE  TRUE  TRUE FALSE  TRUE
## [25]  TRUE FALSE  TRUE  TRUE  TRUE FALSE  TRUE  TRUE FALSE FALSE  TRUE  TRUE
## [37]  TRUE  TRUE FALSE  TRUE FALSE  TRUE FALSE FALSE FALSE FALSE  TRUE  TRUE
## [49] FALSE FALSE
```

```
#subset es igual a un subconjunto de datos

dbh.50 <- subset(if.50, if.50<= median(if.50))

dbh.up50 <- subset(if.50, if.50 >= median(if.50))

dbh.up30 <- subset(if.50, if.50> 30)
dbh.up30
```

```
##  [1] 31.30967 38.86194 32.93194 36.20147 36.35113 36.71677 35.96354 30.41571
##  [9] 30.33739 37.56123 34.26281 32.76192 39.00500 37.56994 31.97295 30.41875
```

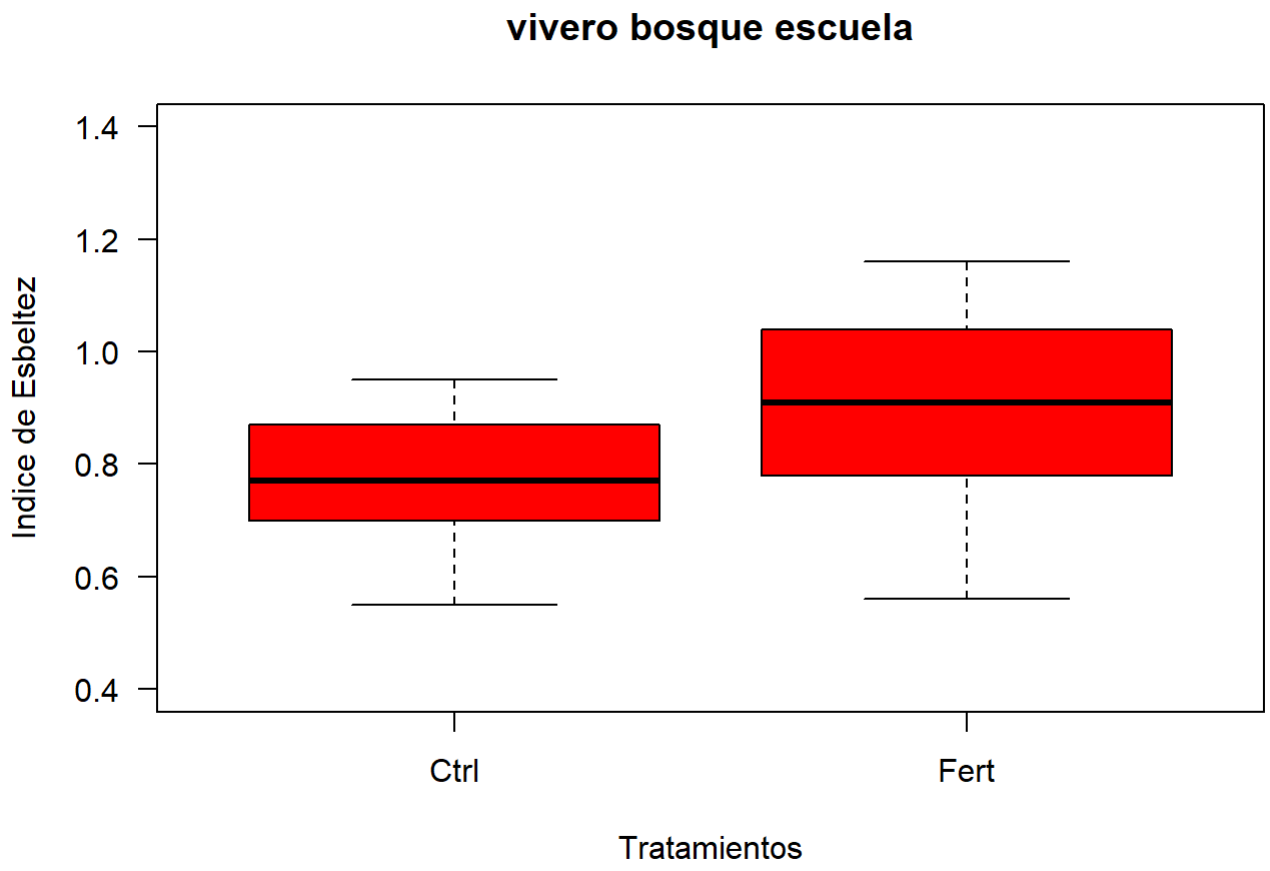
```
mean(dbh.up30)
```

```
## [1] 34.54013
```

```
sd(dbh.up30)
```

```
## [1] 3.100909
```

```
# Importar datos ------------------------------------------------------------

#funcion read.csv


fert <- read.csv("vivero.csv", header= TRUE)

#ingresarlos como factor

#direccion de los ejes de la graficas =las

fert$Tratamiento <- as.factor(fert$Tratamiento)


boxplot(fert$IE ~ fert$Tratamiento,
        xlab= "Tratamientos",
        ylab= "Indice de Esbeltez",
        col= "red",
        main= "vivero bosque escuela",
        las= 1,
        ylim= c(0.4, 1.4))
```


vivero bosque escuela
Indice de Esbeltez
1.4
1.2
1.0
0.8
0.6
0.4
Ctrl
Fert
Tratamientos