

# Clase1.R

*Usuario*

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```
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# Clase 1

# Importar datos -----

dbh <- c(16.5, 25.3, 22.1, 17.2, 16.1, 8.1, 34.3, 5.4, 5.7, 11.2, 24.1,
        14.5, 7.7, 15.6, 15.9, 10, 17.5, 20.5, 7.8, 27.3, 9.7, 6.5,
        23.4, 8.2, 28.5, 10.4, 11.5, 14.3, 17.2, 16.8)

dbh

## [1] 16.5 25.3 22.1 17.2 16.1 8.1 34.3 5.4 5.7 11.2 24.1 14.5 7.7 15.6
## [15] 15.9 10.0 17.5 20.5 7.8 27.3 9.7 6.5 23.4 8.2 28.5 10.4 11.5 14.3
## [29] 17.2 16.8

length(dbh)

## [1] 30

sum(dbh)/length(dbh)

## [1] 15.64333

mean(dbh)

## [1] 15.64333

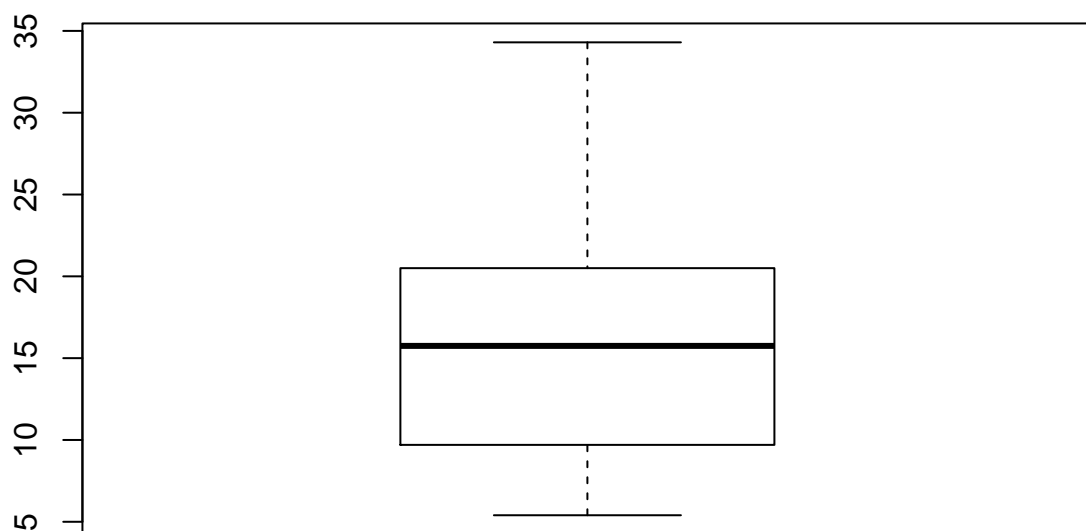
median(dbh)

## [1] 15.75

fivenum(dbh)

## [1] 5.40 9.70 15.75 20.50 34.30

boxplot(dbh)
```



```
range(dbh)
```

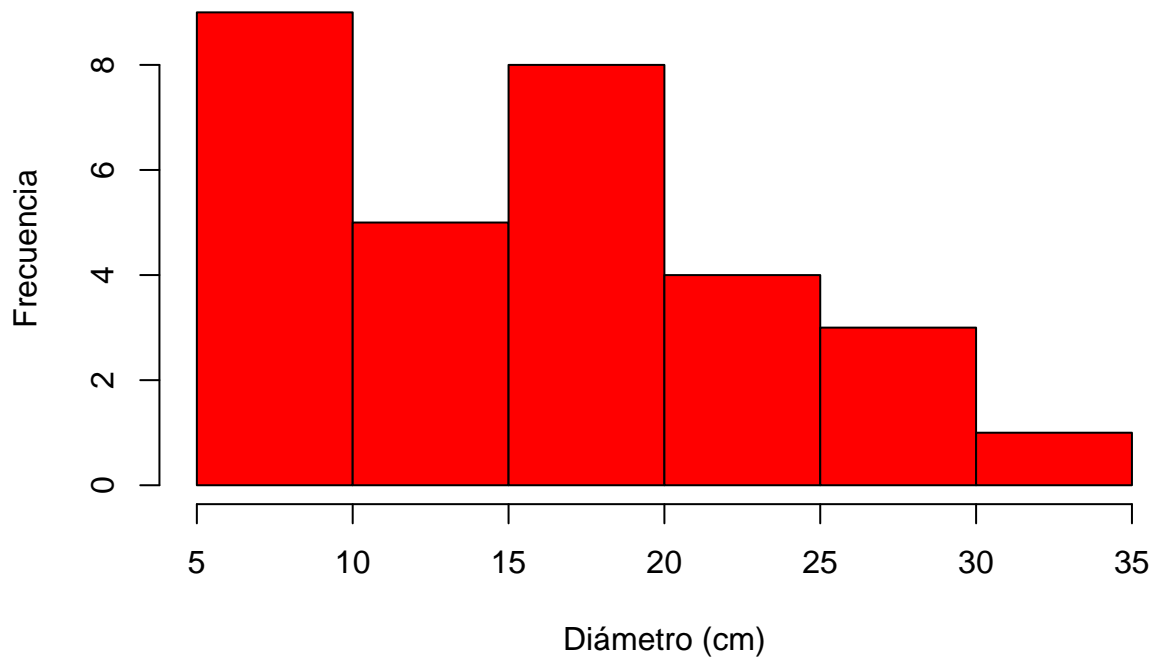
```
## [1]  5.4 34.3
```

```
stem(dbh)
```

```
##
## The decimal point is 1 digit(s) to the right of the |
##
## 0 | 5678888
## 1 | 000124
## 1 | 566677778
## 2 | 1234
## 2 | 579
## 3 | 4
```

```
hist(dbh, main = "Histograma",
     col="red",
     xlab= "Diámetro (cm)",
     ylab = "Frecuencia")
```

## Histograma



```
moda=function(x)
{
  #Función que encuentra la moda de un vector x
  m1 <- sort(table(x),decreasing=T)
  moda <- names(m1[m1==m1[1]])
  moda <- as.numeric(moda)
  return(moda)
}
```

```
moda(dbh)
```

```
## [1] 17.2
```

```
quantile(dbh, 0.25)
```

```
## 25%
```

```
## 9.775
```

```
quantile(dbh, 0.5)
```

```
## 50%
```

```
## 15.75
```

```
quantile(dbh, 0.75)
```

```
## 75%
```

```
## 19.75
```

```
quantile( dbh, 1)
```

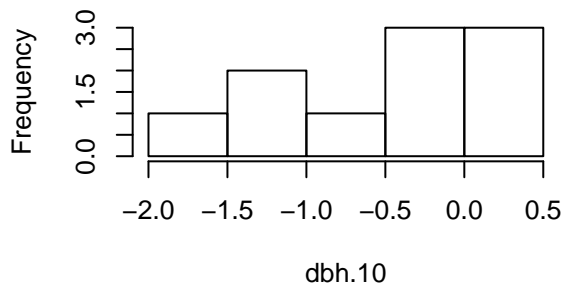
```
## 100%  
## 34.3
```

```
fivenum(dbh)
```

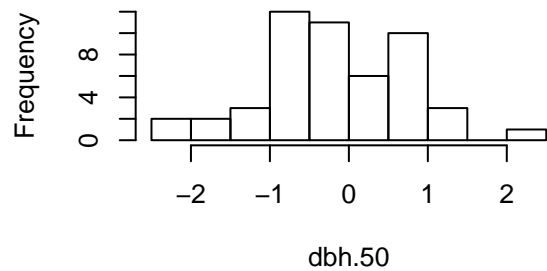
```
## [1]  5.40  9.70 15.75 20.50 34.30
```

```
par(mfrow=c(2,2))  
set.seed(10)  
dbh.10 <- rnorm(10)  
hist(dbh.10)  
dbh.50 <- rnorm(50)  
hist(dbh.50)  
dbh.500 <- rnorm(500)  
hist(dbh.500)  
dbh.1000 <- rnorm(1000)  
hist(dbh.1000)
```

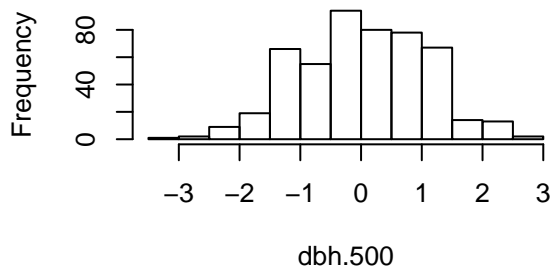
**Histogram of dbh.10**



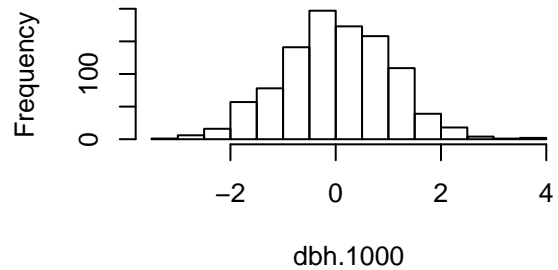
**Histogram of dbh.50**



**Histogram of dbh.500**



**Histogram of dbh.1000**



```
# Probar normalidad de datos
```

```
shapiro.test(dbh)
```

```
##  
## Shapiro-Wilk normality test  
##  
## data: dbh
```

## W = 0.9463, p-value = 0.1344