Clase_1.R

Usuario

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```
# Blanca Hernández
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# Clase 1

#ESTADISTICA DESCRIPTIVA

#El conjunto de datos podemos ingresarlos en el lenguaje R dela siguiente forma:

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
```

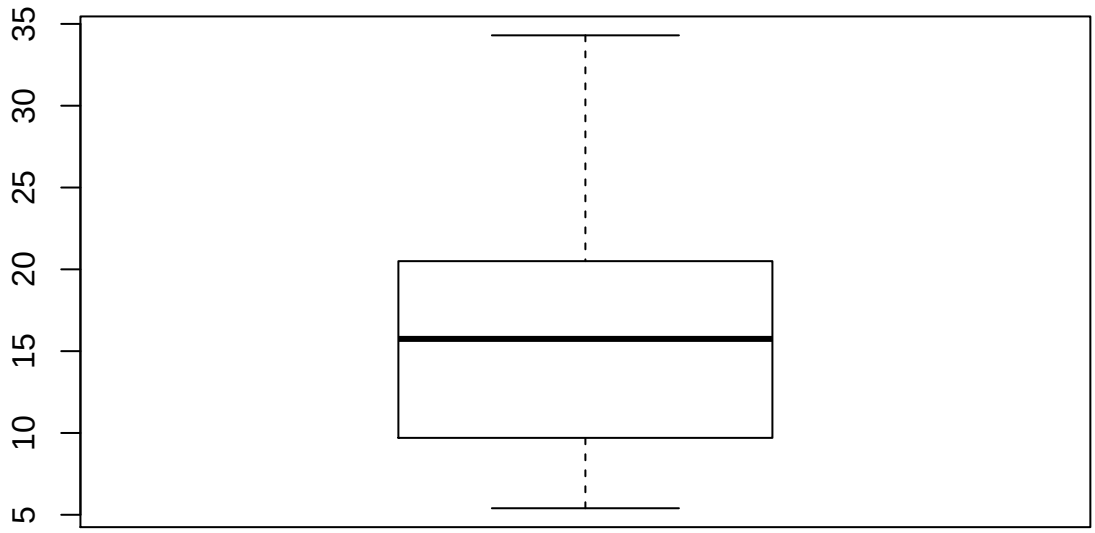
```
median(dbh)
```

```
## [1] 15.75
```

```
fivenum(dbh)
```

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

```
boxplot(dbh)
```



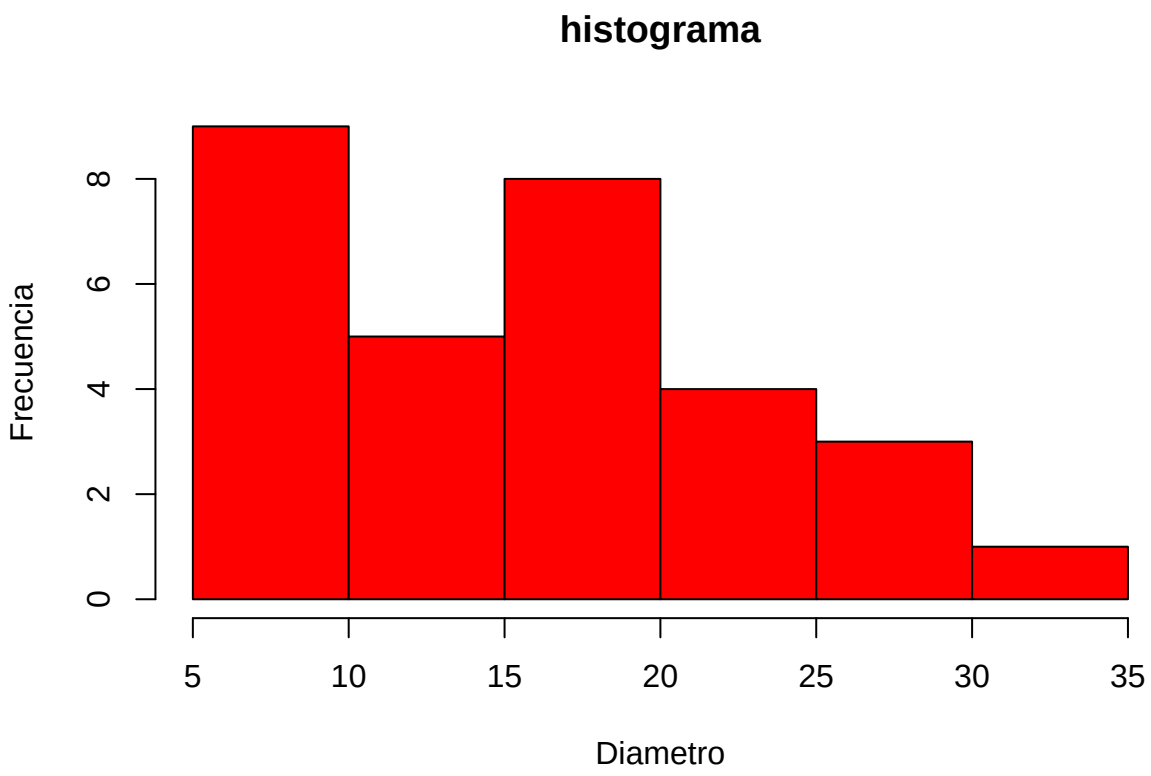

```
range(dbh)
```

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

```
#Cambiar el titulo del histograma
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= "Diametro",
     ylab= "Frecuencia")
```




```
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
```

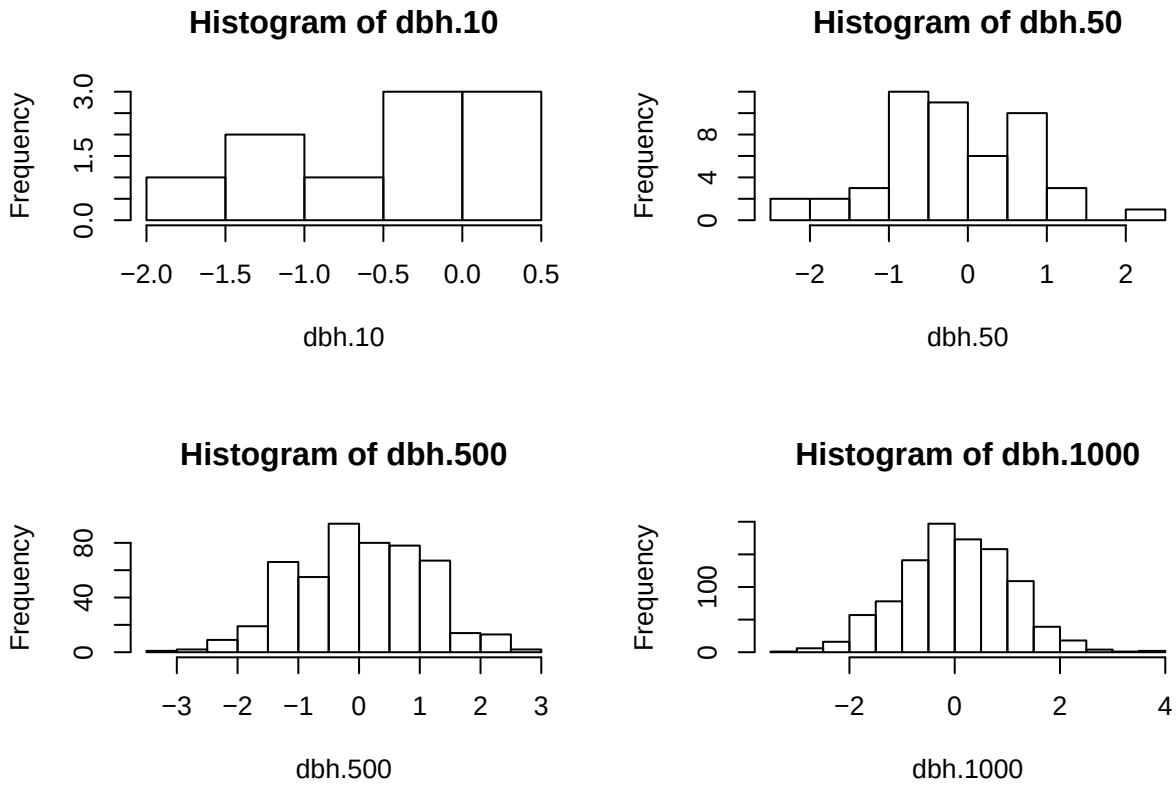
```r
quantile( dbh, 1)
```

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

```r
fivenum(dbh)
```

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

```r
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)
```




```r
#Probar la normalidad de datos
shapiro.test(dbh)
```

```
##
##  Shapiro-Wilk normality test
##
## data:  dbh
## W = 0.9463, p-value = 0.1344
```