Week 1 Assignment

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```
str(iris)
```

```
## 'data.frame':    150 obs. of  5 variables:
## $ Sepal.Length: num  5.1 4.9 4.7 4.6 5 5.4 4.6 5 4.4 4.9 ...
## $ Sepal.Width : num  3.5 3 3.2 3.1 3.6 3.9 3.4 3.4 2.9 3.1 ...
## $ Petal.Length: num  1.4 1.4 1.3 1.5 1.4 1.7 1.4 1.5 1.4 1.5 ...
## $ Petal.Width : num  0.2 0.2 0.2 0.2 0.2 0.4 0.3 0.2 0.2 0.1 ...
## $ Species     : Factor w/ 3 levels "setosa","versicolor",..: 1 1 1 1 1 1 1 1 1 1 ...
```

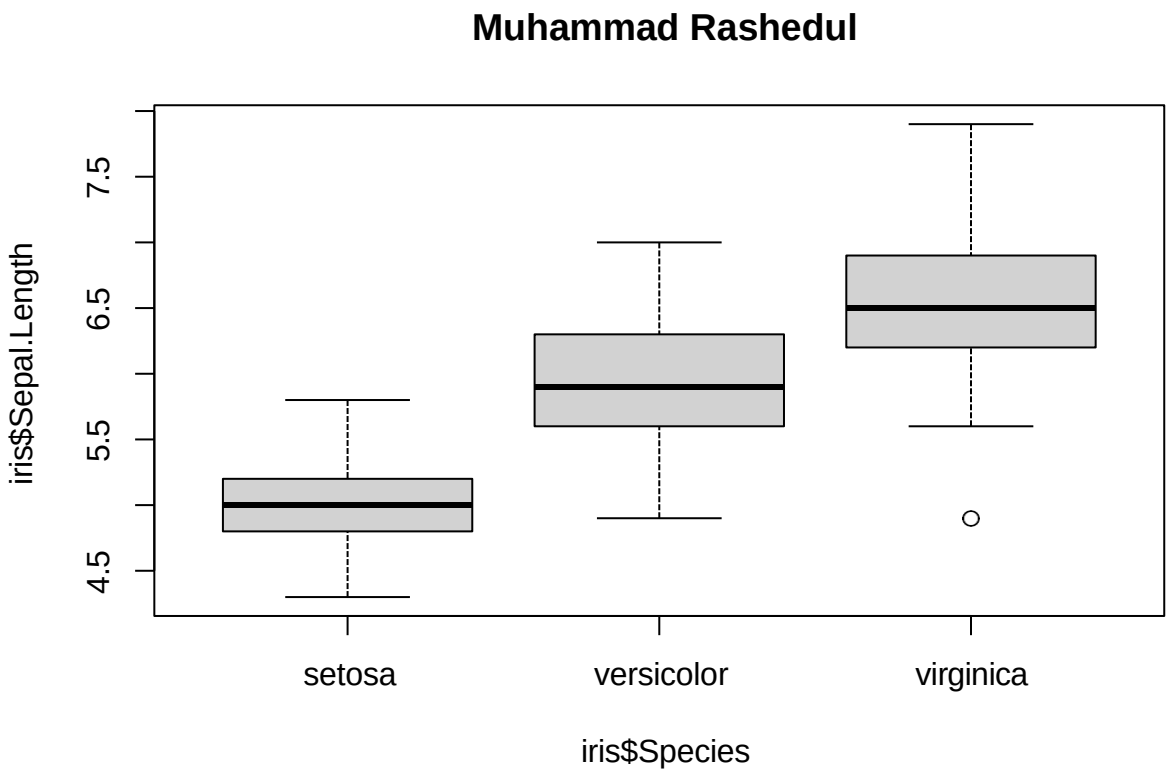
```
summary(iris)
```

```
##    Sepal.Length    Sepal.Width     Petal.Length    Petal.Width
##  Min.   :4.300   Min.   :2.000   Min.   :1.000   Min.   :0.100
##  1st Qu.:5.100   1st Qu.:2.800   1st Qu.:1.600   1st Qu.:0.300
##  Median :5.800   Median :3.000   Median :4.350   Median :1.300
##  Mean   :5.843   Mean   :3.057   Mean   :3.758   Mean   :1.199
##  3rd Qu.:6.400   3rd Qu.:3.300   3rd Qu.:5.100   3rd Qu.:1.800
##  Max.   :7.900   Max.   :4.400   Max.   :6.900   Max.   :2.500
##        Species
##  setosa     :50
##  versicolor:50
##  virginica :50
##
##
##
```

```
head(iris,6)
```

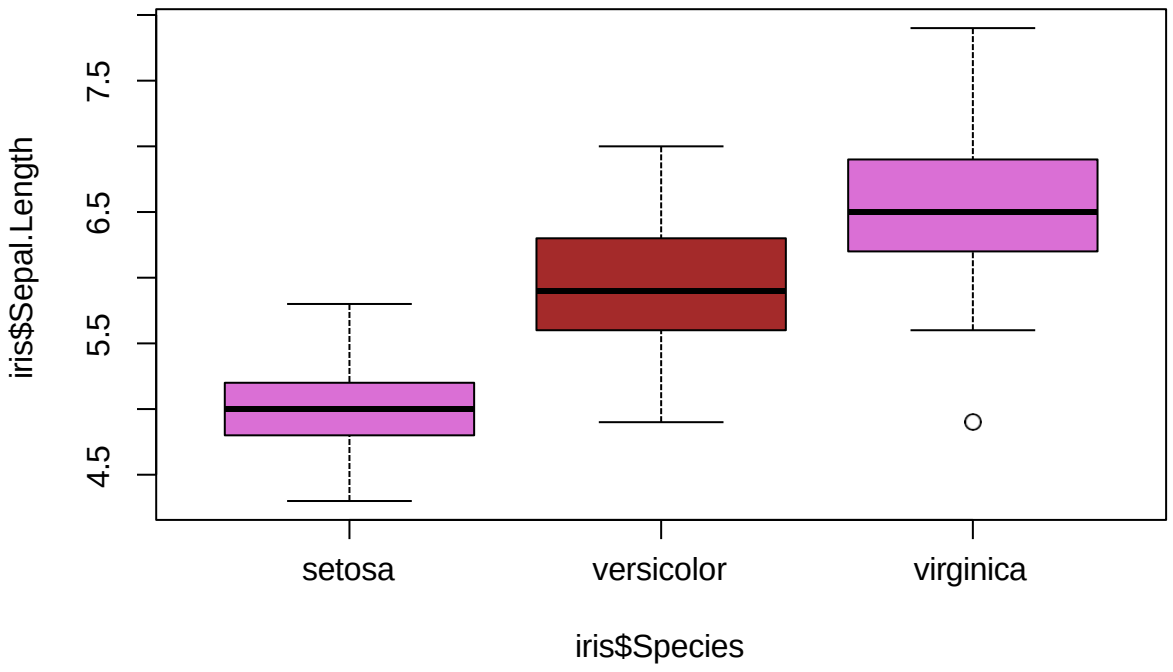
```
##   Sepal.Length Sepal.Width Petal.Length Petal.Width Species
## 1          5.1         3.5          1.4         0.2  setosa
## 2          4.9         3.0          1.4         0.2  setosa
## 3          4.7         3.2          1.3         0.2  setosa
## 4          4.6         3.1          1.5         0.2  setosa
## 5          5.0         3.6          1.4         0.2  setosa
## 6          5.4         3.9          1.7         0.4  setosa
```

```
boxplot( iris$Sepal.Length ~ iris$Species,main=" Muhammad Rashedul
" )
```

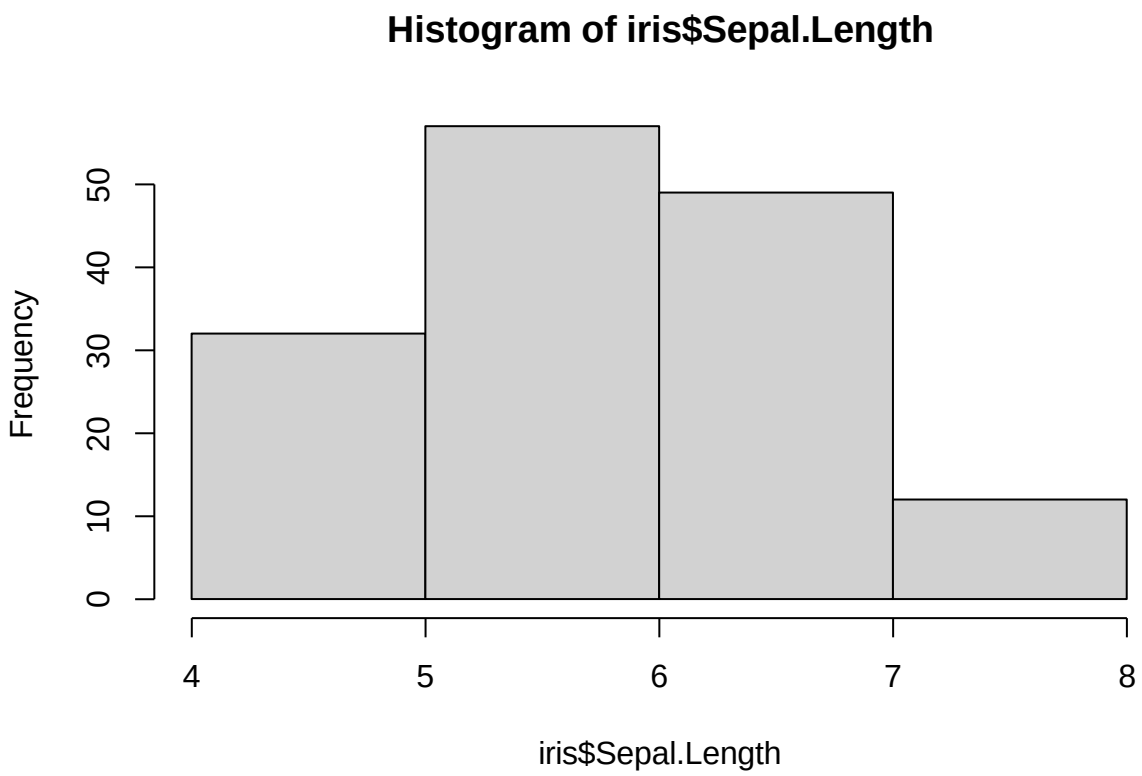



```
boxplot( iris$Sepal.Length ~ iris$Species,notch=TRUE )
```

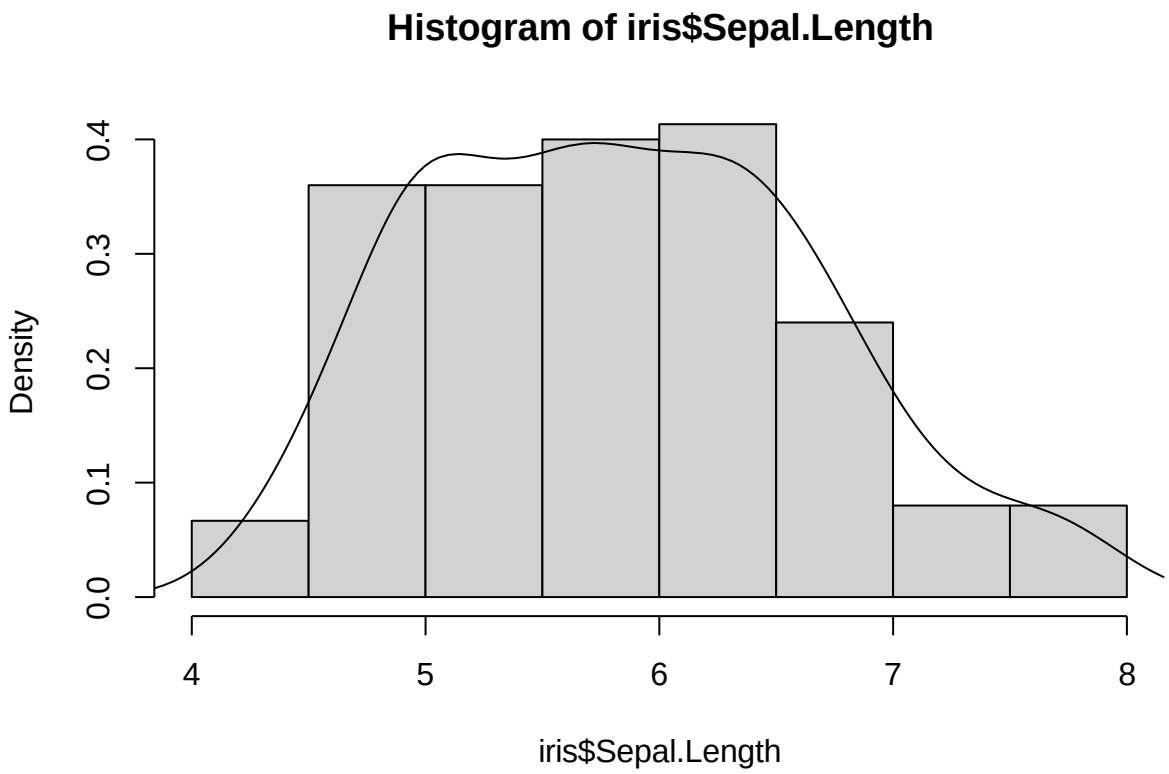

```
boxplot( iris$Sepal.Length ~ iris$Species,col=c("orchid","brown" ))
```



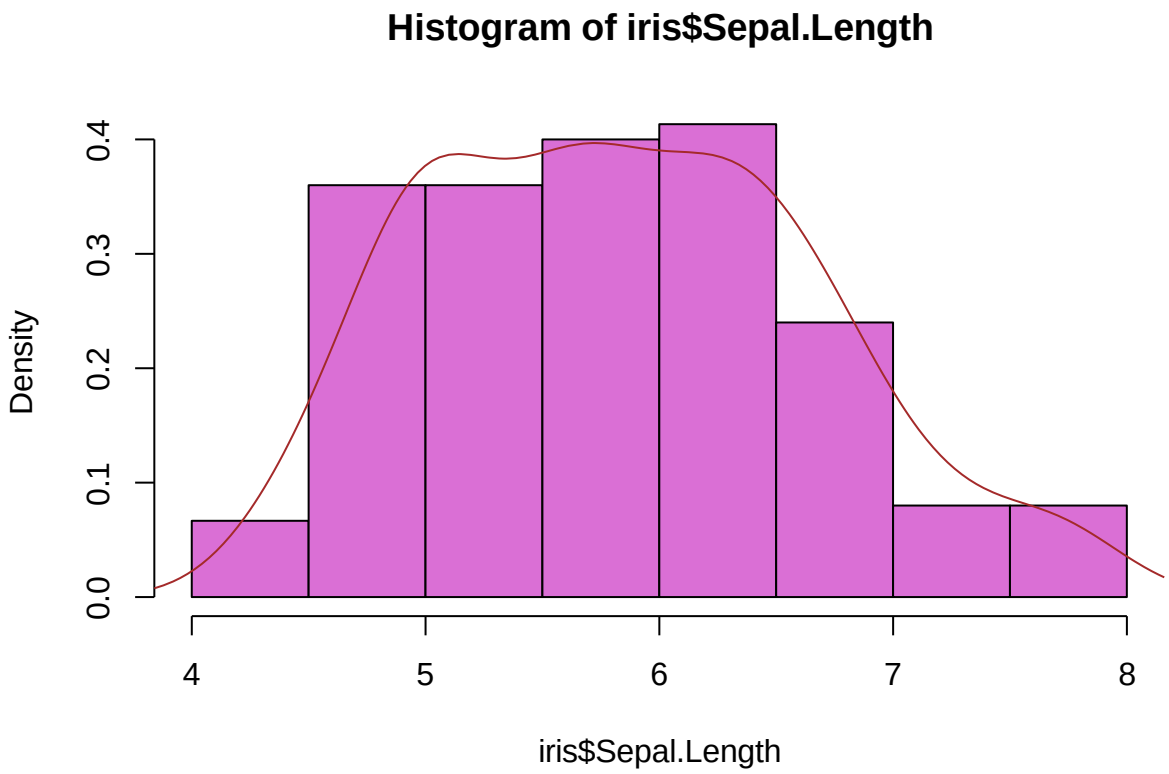

```
hist( iris$Sepal.Length , breaks=5)
```



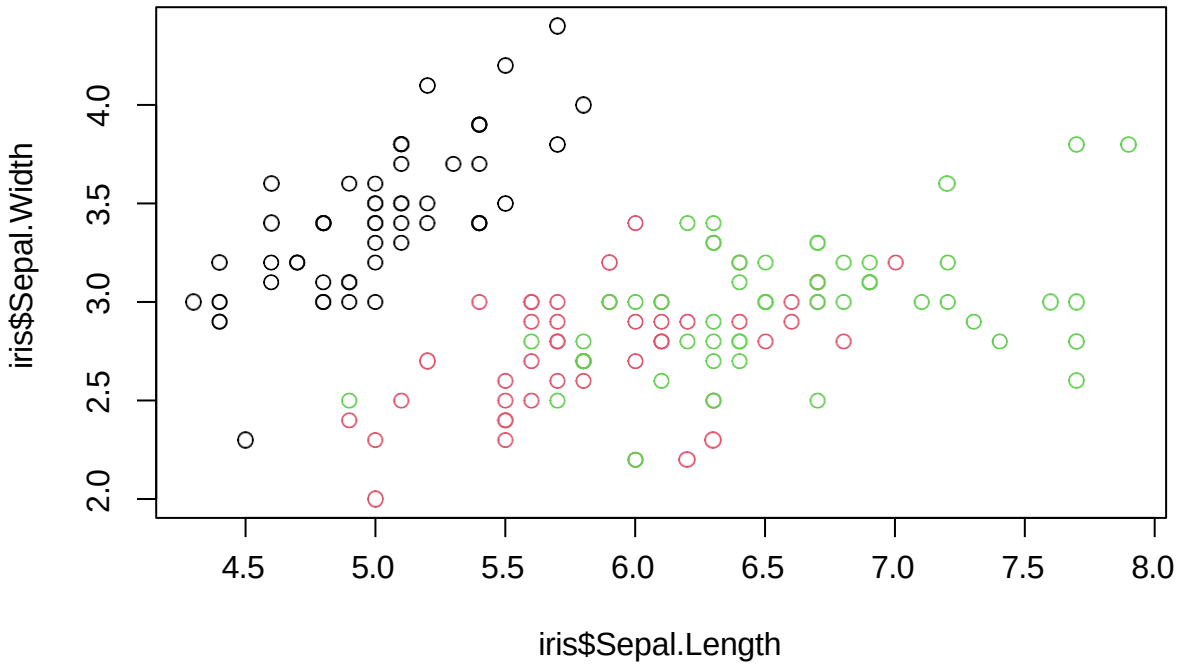

```
hist( iris$Sepal.Length, prob=TRUE )
lines( density( iris$Sepal.Length) )
```



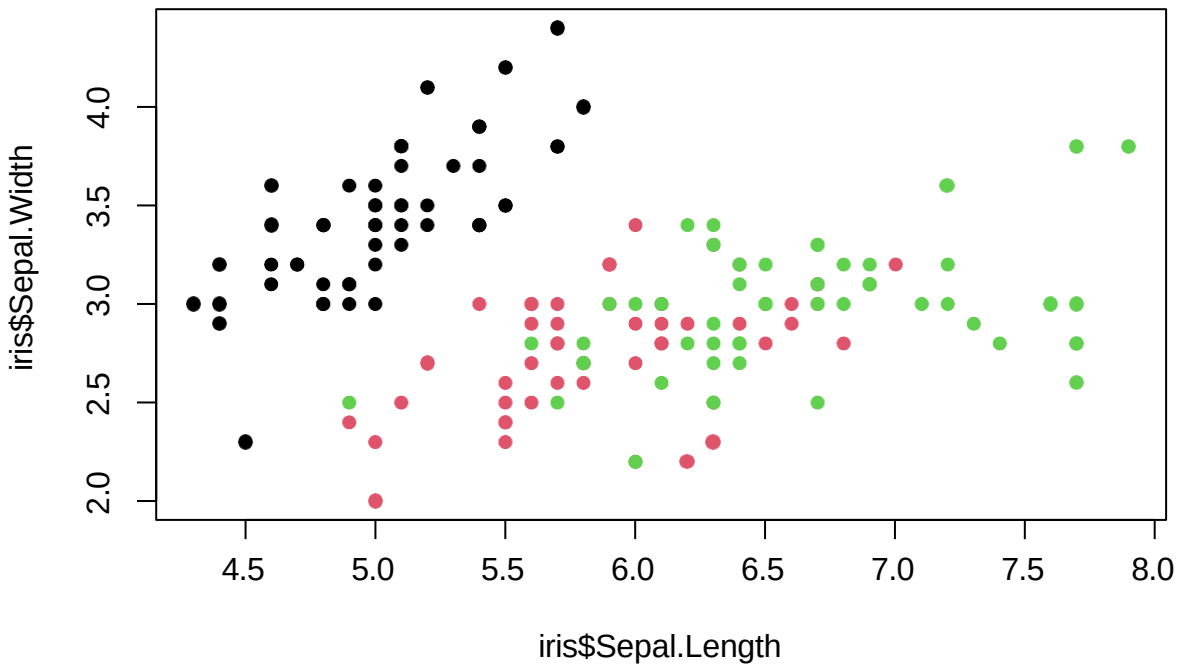

```
hist( iris$Sepal.Length, prob=TRUE , col="orchid" )
lines( density( iris$Sepal.Length), col="brown" )
```



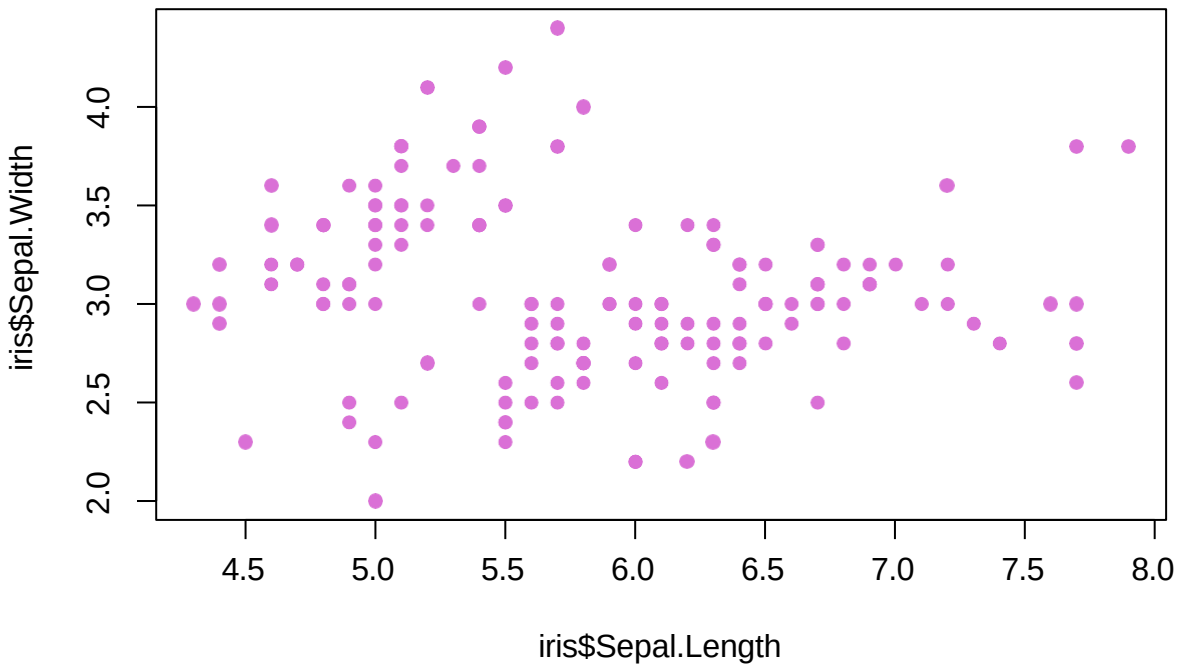

```
plot( iris$Sepal.Length, iris$Sepal.Width,col=iris$Species )
```




```
plot( iris$Sepal.Length, iris$Sepal.Width,col=iris$Species ,pch=16)
```




```
plot( iris$Sepal.Length, iris$Sepal.Width,col="orchid" ,pch=16)
```




```
mean(iris$Sepal.Length)
```

```
## [1] 5.843333
```

```
median(iris$Sepal.Length)
```

```
## [1] 5.8
```

```
min(iris$Sepal.Length)
```

```
## [1] 4.3
```

```
max(iris$Sepal.Length)
```

```
## [1] 7.9
```

```
sd(iris$Sepal.Length)
```

```
## [1] 0.8280661
```

```r
aggregate( x=iris$Sepal.Length, by=list( iris$Species), FUN=median )[ order( aggregate( x=iris$Sepal.Le
```

```
##        Group.1   x
## 3    virginica 6.5
## 2   versicolor 5.9
## 1       setosa 5.0
```