A Test File

Friedrich Leisch

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A simple example: the integers from 1 to 10 are

```
 [1]  1  2  3  4  5  6  7  8  9 10
```

We can also emulate a simple calculator:

```
> 1 + 1
```

```
[1] 2
```

```
> 1 + pi
```

```
[1] 4.141593
```

```
> sin(pi/2)
```

```
[1] 1
```

Now we look at Gaussian data:

```
 [1]  0.949752409  0.483325684 -0.760806939  0.092644547  0.011099197  0.560576076  1.616607512
 [8]  0.488080974  0.930217312  0.893279641  0.001694749  0.682181963  1.451578640  1.226409662
[15]  1.002995978 -0.763480667 -0.504657031 -0.677112484 -0.984127510  0.419624413

        One Sample t-test

data:  x
t = 2.0428, df = 19, p-value = 0.0552
alternative hypothesis: true mean is not equal to 0
95 percent confidence interval:
 -0.008761039  0.720749452
sample estimates:
mean of x
0.3559942
```

Note that we can easily integrate some numbers into standard text: The third element of vector x is -0.760806938653241, the p-value of the test is 0.055201.

Now we look at a summary of the famous `iris` data set, and we want to see the commands in the code chunks:

```
> data(iris)
> summary(iris)
```

```
  Sepal.Length    Sepal.Width     Petal.Length    Petal.Width          Species
 Min.   :4.300   Min.   :2.000   Min.   :1.000   Min.   :0.100   setosa    :50
 1st Qu.:5.100   1st Qu.:2.800   1st Qu.:1.600   1st Qu.:0.300   versicolor:50
 Median :5.800   Median :3.000   Median :4.350   Median :1.300   virginica :50
 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
```
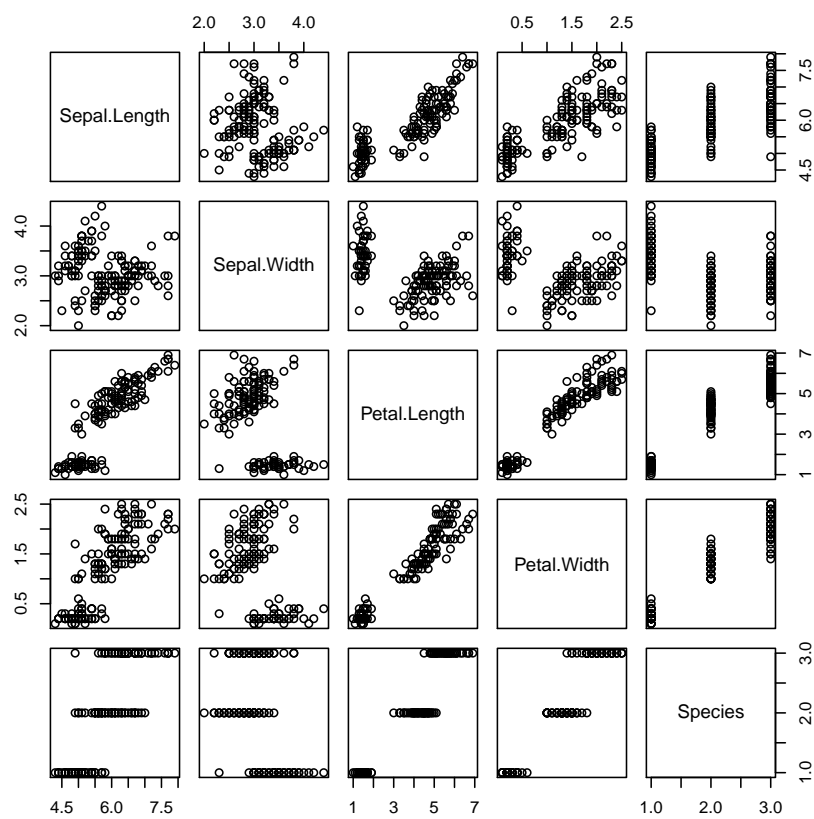
```
> library(graphics)
> pairs(iris)
```


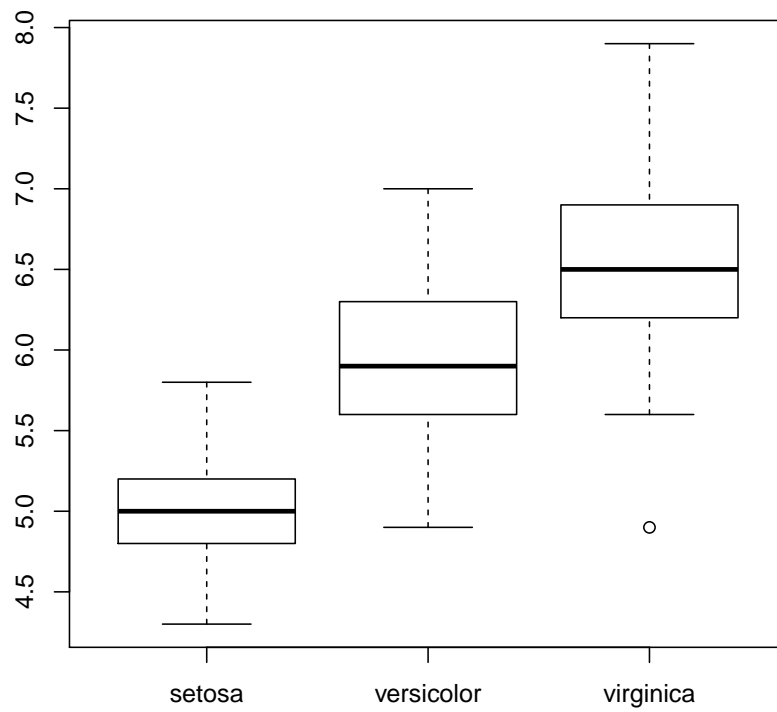Figure 1: Pairs plot of the iris data.

```
> boxplot(Sepal.Length~Species, data=iris)
```


Figure 2: Boxplot of sepal length grouped by species.