

A Test File

Friedrich Leisch

October 24, 2016

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] -0.56669786 -0.81519279 1.49337337 -0.01993643 0.20090879 -0.63812184 -1.60923032 0.02669
[12] -0.26378764 -0.41315105 -0.19540631 -1.39446652 -0.91342746 0.08244064 0.10734325 -1.91720
```

One Sample t-test

```
data: x
```

```
t = -2.4319, df = 19, p-value = 0.02508
```

```
alternative hypothesis: true mean is not equal to 0
```

```
95 percent confidence interval:
```

```
-0.77804476 -0.05826645
```

```
sample estimates:
```

```
mean of x
```

```
-0.4181556
```

Note that we can easily integrate some numbers into standard text: The third element of vector `x` is 1.49337337333103, the p -value of the test is 0.025081.

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)
```

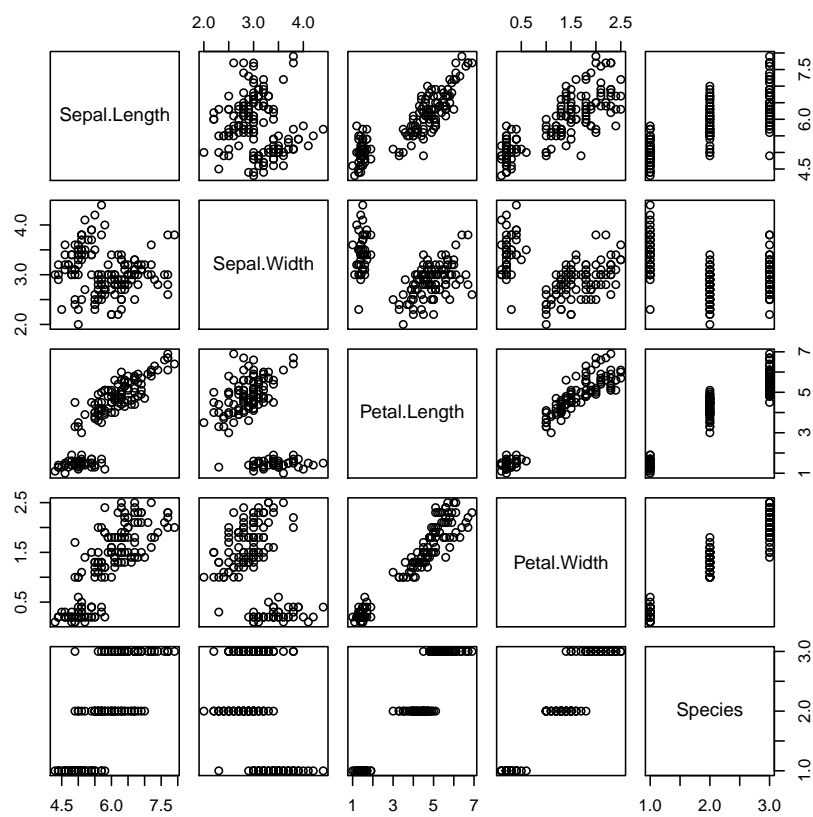


Figure 1: Pairs plot of the iris data.

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

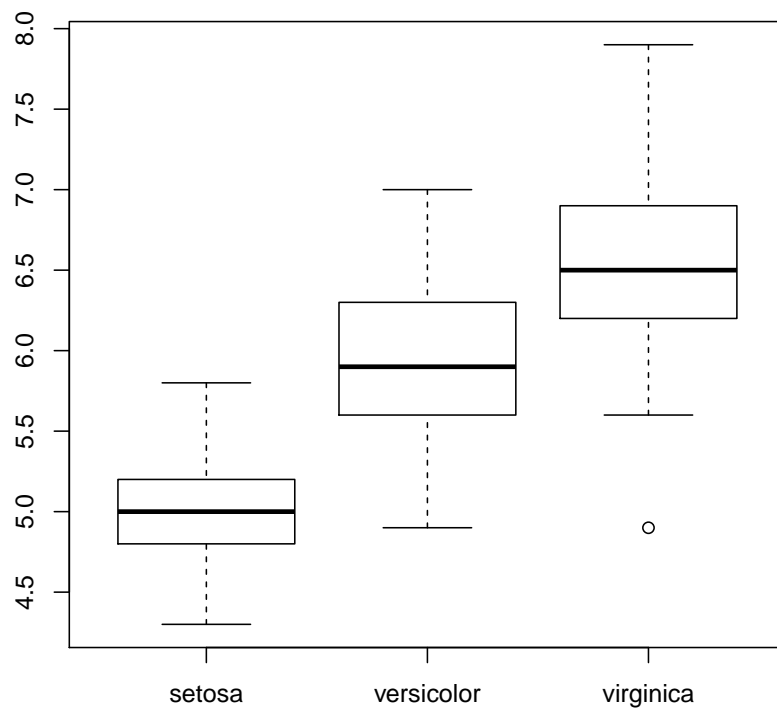


Figure 2: Boxplot of sepal length grouped by species.