

Summary of the data set

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

Analysis 1

<http://www.rdatamining.com/examples/exploration>

```
> dim(iris)
[1] 150    5
```

Shows the amount of examples and their dimension.

```
> names(iris)
[1] "Sepal.Length" "Sepal.Width"
    "Petal.Length" "Petal.Width"  "Species"
```

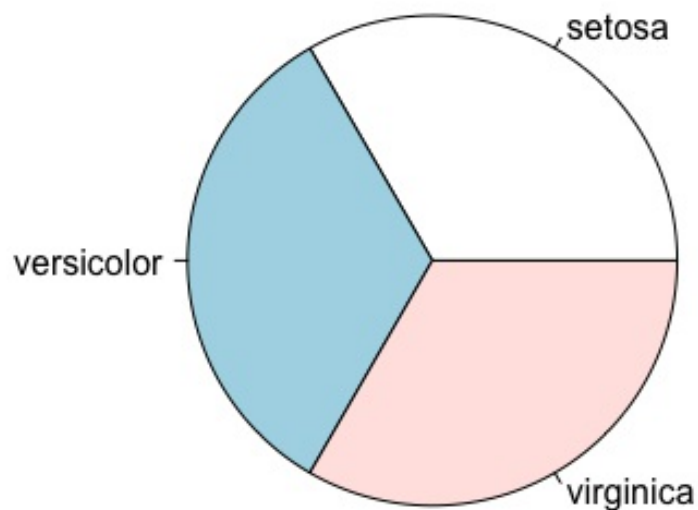
Shows the dimension names.

```
> str(iris)
'data.frame':   150 obs. of  5 variables:
 $ Sepal.Length: num  5.1 4.9 4.7 ...
 $ Sepal.Width : num  3.5 3 3.2 3.1 ...
```

```
$ Petal.Length: num  1.4 1.4 1.3 1.5 ...  
$ Petal.Width : num  0.2 0.2 0.2 0.1 ...  
$ Species      : Factor w/  
3 levels "setosa","versicolor",...: 1 1 ...
```

A compact representation of the data.

```
> table(iris$Species)  
  
    setosa versicolor  virginica  
      50       50       50  
> pie(table(iris$Species))
```



Information about the frequency of values.

```
> var(iris$Sepal.Length)
```

```
[1] 0.6856935
```

Variance of the sepal length.

```
> cov(iris$Sepal.Length, iris$Petal.Length)
[1] 1.274315
```

Covariance between sepal and petal length.

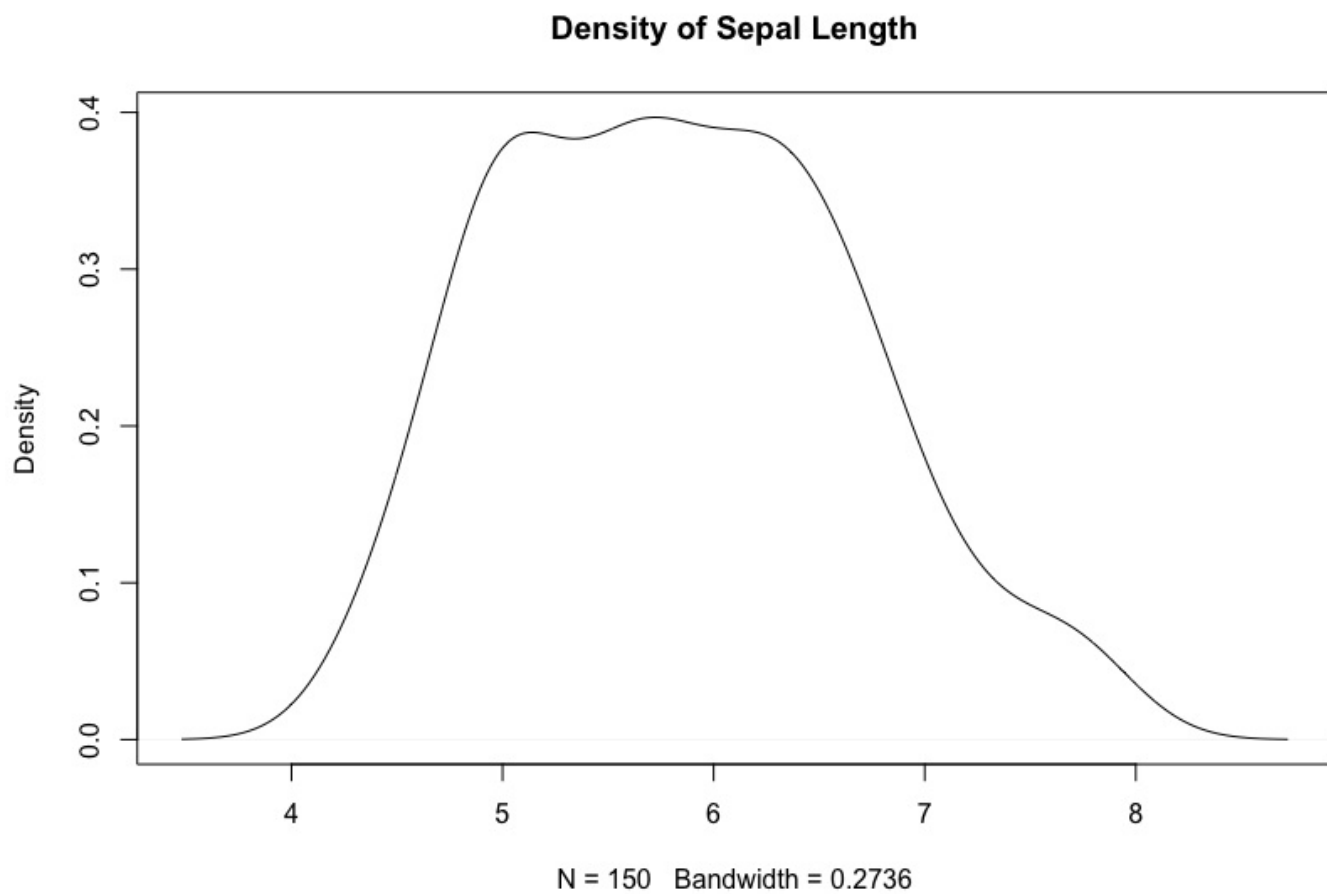
```
> cor(iris$Sepal.Length, iris$Petal.Length)
[1] 0.8717538
```

Correlation between sepal and petal length.

```
> hist(iris$Sepal.Length, main="Sepal Length")
```



```
> plot(density(iris$Sepal.Length))
```



```
> plot(iris$Sepal.Length, iris$Sepal.Width)
```

