

Chap1

First, set working directory. 'data' is a table with two columns and same number of rows, and should be numeric. Columns have headers indicating the names of the variables. User will also input desired variable names in double quotes

View the data.

```
##      Len Wid
## 1      3   8
## 2      6   4
## 3      2  10
## 4      6   1
## 5      2  11
## 6      9   1
## 7      6   4
## 8      5   3
## 9      9   1
## 10     4   6
## 11     7   2
## 12    11   1
## 13     5   9
## 14     4   3
## 15     3   4
## 16     9   1
## 17    10   3
## 18     5   3
## 19     4   3
## 20    10   2
```

Calculate the mean for all columns

```
##      Len Wid
## 1      6   4
```

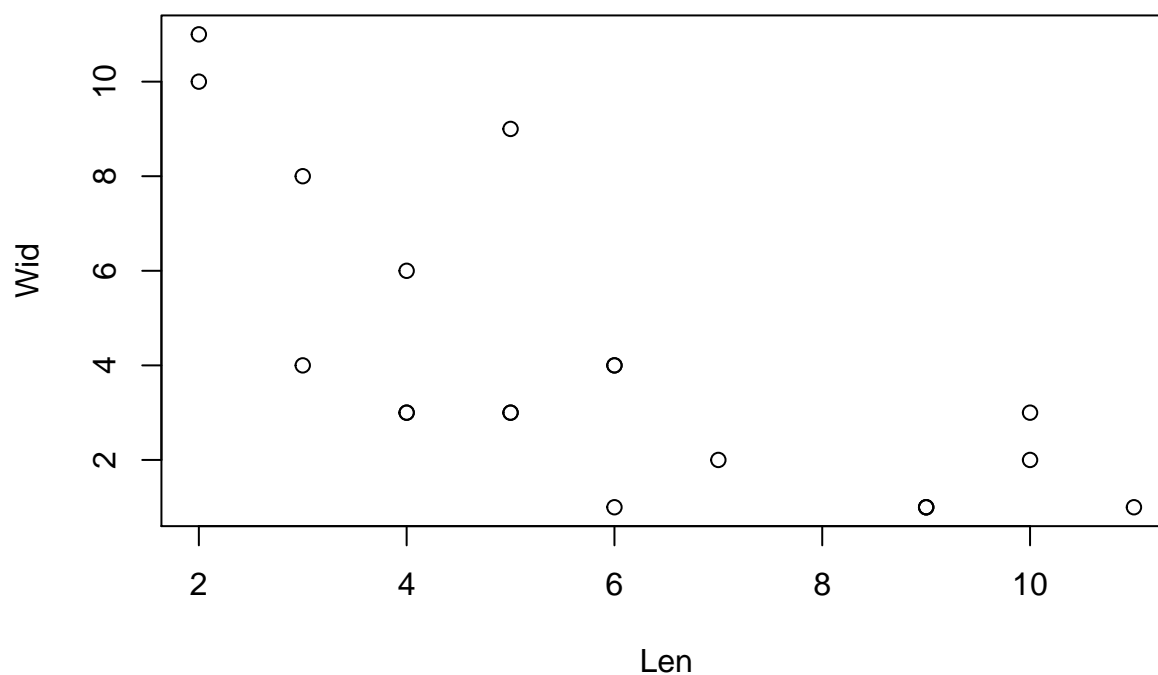
Calculate the standard deviation for all columns

```
##          Len      Wid
## 1 2.809757 3.14559
```

We now perform a correlation and a test on the data which gives confidence intervals, regression analysis on the data, an ANOVA on the data

We now print the data and all the results

Length vs Meanings



| df | t_value | p_value | r | LowC.I. | UpperC.I |
|----|-----------|-----------|------------|------------|------------|
| 18 | -4.564434 | 0.0002403 | -0.7324543 | -0.8873588 | -0.4289759 |

Regression Analysis

| | Estimate | Std. Error | t value | Pr(> t) |
|-------------|------------|------------|-----------|-----------|
| (Intercept) | 8.6170213 | 0.7223990 | 11.928340 | 0.0000000 |
| var2 | -0.6542553 | 0.1433377 | -4.564434 | 0.0002403 |

ANOVA table

| | Df | Sum Sq | Mean Sq | F value | Pr(>F) |
|-----------|----|---------|-----------|----------|-----------|
| var2 | 1 | 80.4734 | 80.473404 | 20.83406 | 0.0002403 |
| Residuals | 18 | 69.5266 | 3.862589 | NA | NA |