

# 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.

View the data

```
data
```

```
##      Length Meanings
## 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

```
##      Length Meanings
## 1      6          4
```

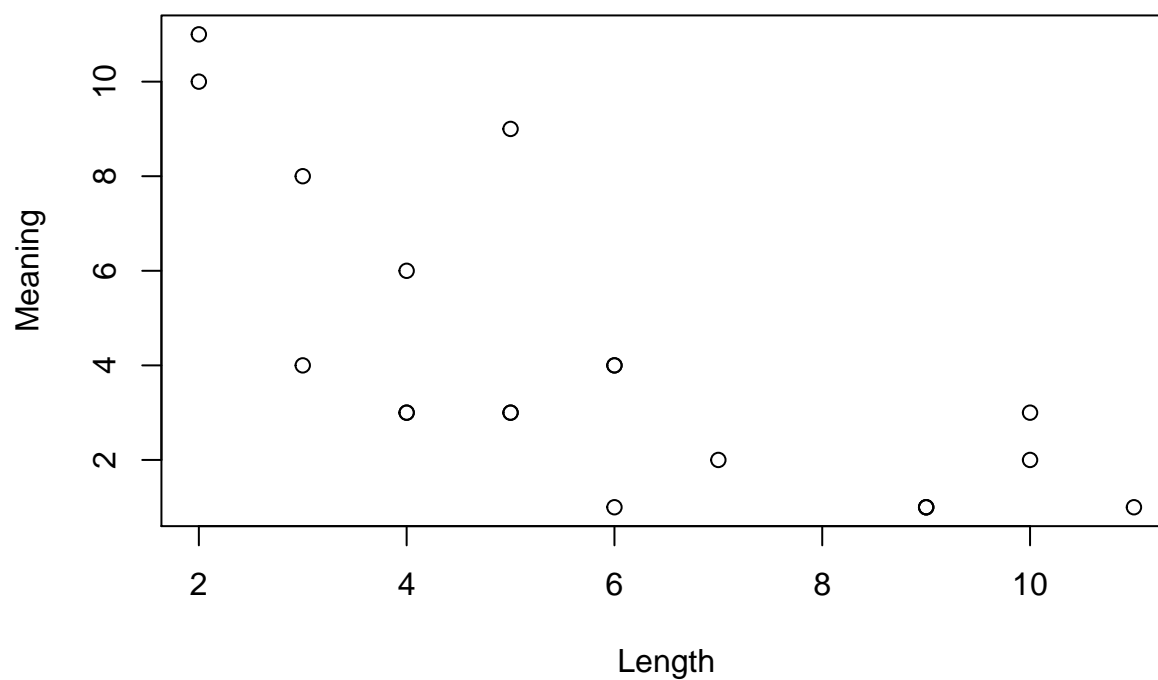
Calculate the standard deviation for all columns

```
##      Length Meanings
## 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	p	r	LowC.I.	UpperC.I.
df	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
Meaning	-0.6542553	0.1433377	-4.564434	0.0002403

### ANOVA table

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