

My first R Sweave file

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01/22/2020

1 R Sweave

This is an R Sweave document. For more details on using R Sweave see <https://rpubs.com/YaRrr/SweaveIntro>.

Click “Compile PDF” to generate PDF file

2 Font

Earthquake Data

Earthquake Data

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3 Math environment

$$a^2 + b^2 = c^2$$

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$$x + y = z \tag{1}$$

4 Embed R code

R chunk start with a title of `<< r - eq >>=` and end with `@` key `r-eq` is the title of the R chunk, please use different name for each chunk

```

# #key is used to comment things
#### Example: Earthquake data
eq<-c(18,14,10,15,8,15,6,11,8,7,12,11,23,16,15,25,22,20,16,23)
eq

## [1] 18 14 10 15 8 15 6 11 8 7 12 11 23 16 15 25 22 20 16 23

##mean of eq data
mean(eq)

## [1] 14.75

#### variance
var(eq)

## [1] 32.72368

```

5 Plot data

Pressure is a dataset installed in R,

```

nrow(pressure) #number of observation of the data
## [1] 19

head(pressure) #first 5 data lines
##   temperature pressure
## 1           0  0.0002
## 2          20  0.0012
## 3          40  0.0060
## 4          60  0.0300
## 5          80  0.0900
## 6         100  0.2700

summary(pressure) #summary statistics
##   temperature      pressure
## Min.   : 0      Min.   : 0.0002
## 1st Qu.: 90     1st Qu.: 0.1800
## Median :180     Median : 8.8000
## Mean   :180     Mean   :124.3367
## 3rd Qu.:270     3rd Qu.:126.5000
## Max.   :360     Max.   :806.0000

```

```
pressure #full data set

##      temperature pressure
## 1           0    0.0002
## 2          20    0.0012
## 3          40    0.0060
## 4          60    0.0300
## 5          80    0.0900
## 6         100    0.2700
## 7         120    0.7500
## 8         140    1.8500
## 9         160    4.2000
## 10        180    8.8000
## 11        200   17.3000
## 12        220   32.1000
## 13        240   57.0000
## 14        260   96.0000
## 15        280  157.0000
## 16        300  247.0000
## 17        320  376.0000
## 18        340  558.0000
## 19        360  806.0000

plot(pressure) #plot data
```

