Assignment #0 - SRT411

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This is my RMarkdown document which holds my answers to the ToDo excercises from Torf's and Brauer's "A (very) short introduction to R" which can be found at this link "https://cran.r-project.org/doc/contrib/Torfs+Brauer-Short-R-Intro.pdf". My Github can be found at this link "https://github.com/swarsame/SRT411-Assignment-0".

ToDo-1

```
((2019-2018)/(2019-1994))*100
```

```
## [1] 4
```

ToDo-2

```
born = 1994
current = 2019
schoolstart = 2018
((current-schoolstart)/(current-born))*100
```

```
## [1] 4
```

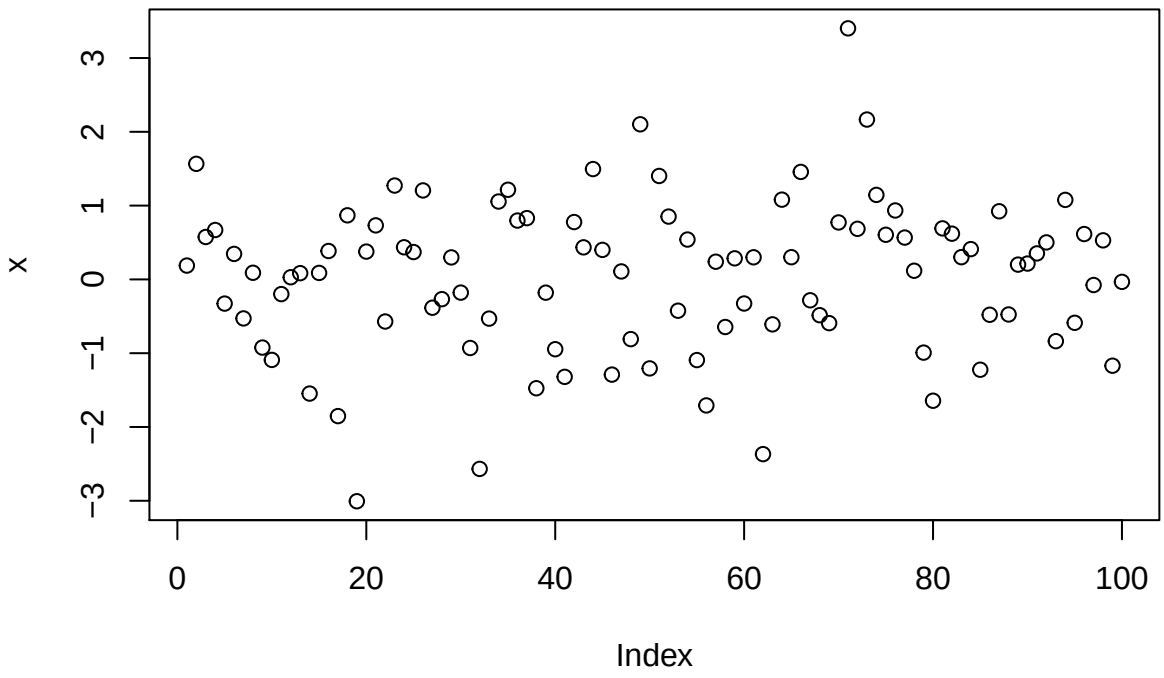
ToDo-3

```
b = c(4,5,8,11)
sum(x=b)
```

```
## [1] 28
```

ToDo-4

```
x = rnorm(100)
plot(x)
```

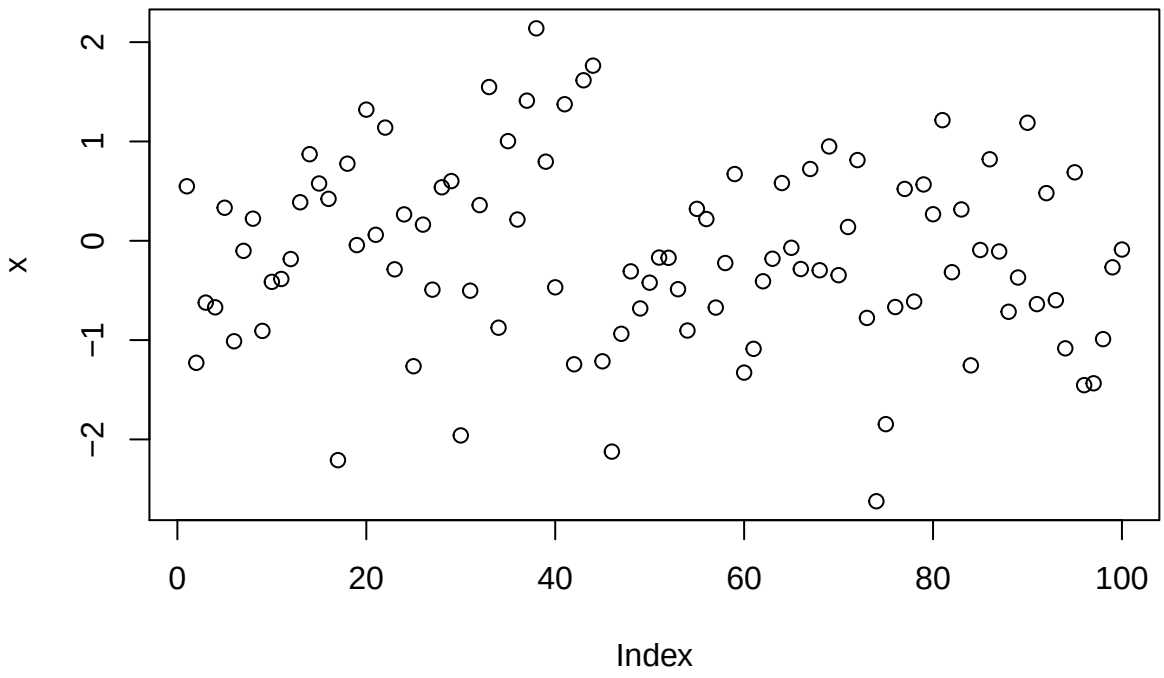


ToDo-5

```
help(sqrt)
```

ToDo-6

```
source("script.R")
```



ToDo-7

```
P = seq(from=31, to=60, by=1)
P
```

```
##  [1] 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53
## [24] 54 55 56 57 58 59 60
```

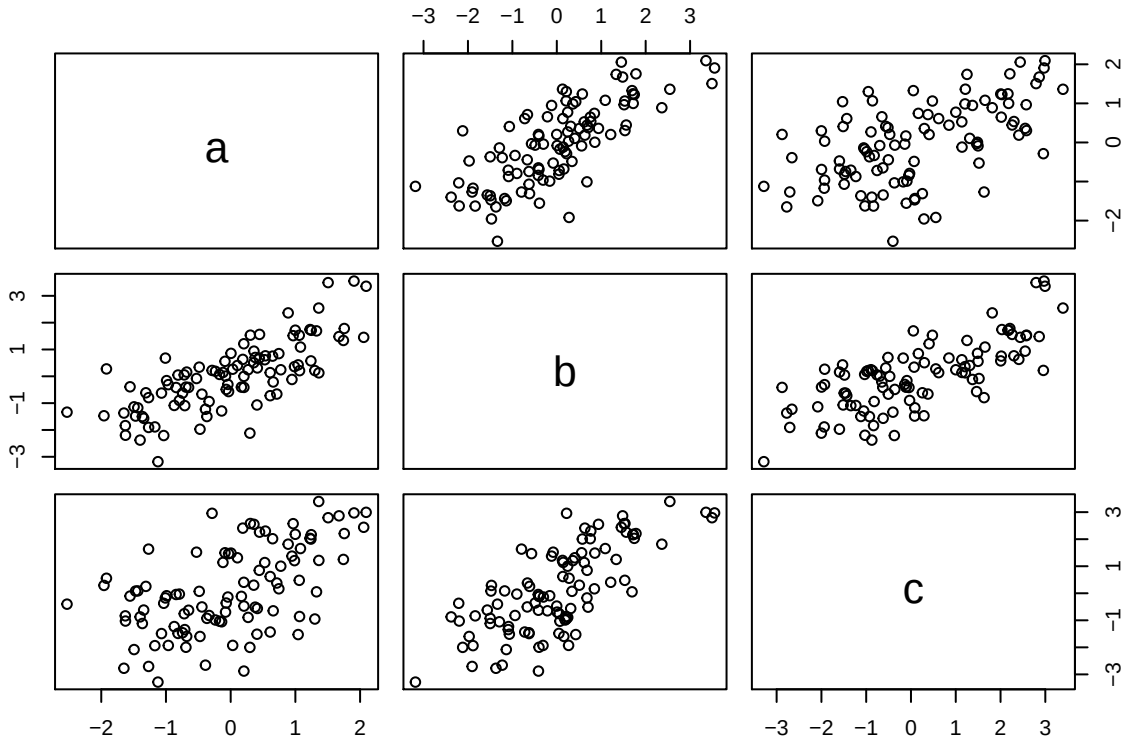
```
Q = matrix(P,nrow=6,ncol=5)
Q
```

```
##      [,1] [,2] [,3] [,4] [,5]
## [1,]   31   37   43   49   55
## [2,]   32   38   44   50   56
## [3,]   33   39   45   51   57
## [4,]   34   40   46   52   58
## [5,]   35   41   47   53   59
## [6,]   36   42   48   54   60
```

ToDo-8

```
x1 = rnorm(100)
x2 = rnorm(100)
```

```
x3 = rnorm(100)
t = data.frame(a = x1, b = x1+x2, c = x1+x2+x3)
plot(t)
```

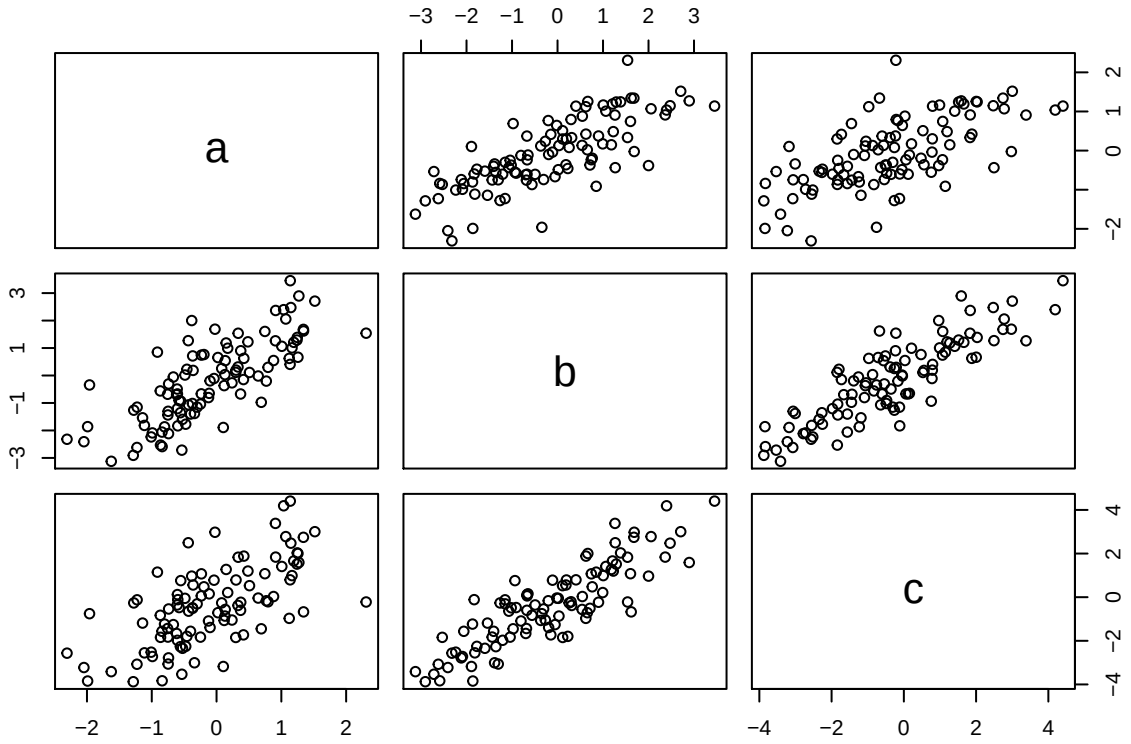



```
sapply(t, sd)
```

```
##        a        b        c
## 1.034773 1.289289 1.599693
```

ToDo-9

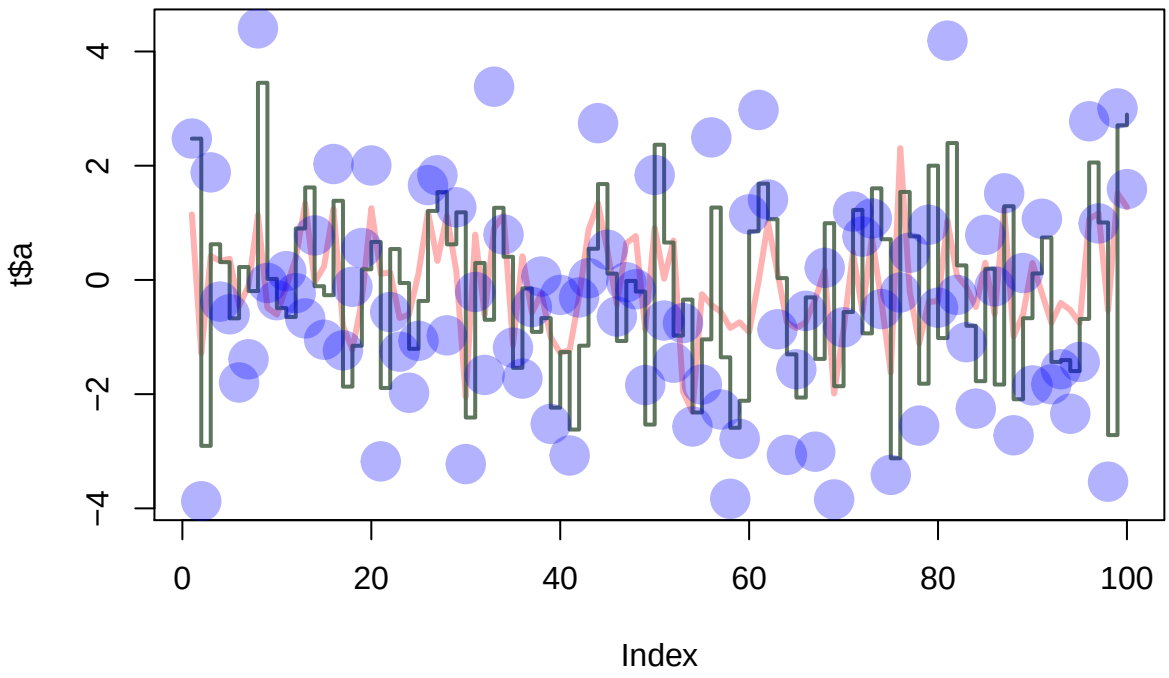
```
x1 = rnorm(100)
x2 = rnorm(100)
x3 = rnorm(100)
t = data.frame(a = x1, b = x1+x2, c = x1+x2+x3)
plot(t)
```




```
sapply(t, sd)
```

```
##         a         b         c
## 0.8924561 1.4623377 1.8516434
```

```
plot(t$a, type="l", ylim=range(t),lwd=3, col=rgb(1,0,0,0.3))
lines(t$b, type="s", lwd=2,col=rgb(0.3,0.4,0.3,0.9))
points(t$c, pch=20, cex=4,col=rgb(0,0,1,0.3))
```



ToDo-10

```
d = data.frame(a = c(1,2,4,8,16,32), g = c(2,4,8,16,32,64), x = c(3,6,12,24,48,96))
write.table(d, file="tst1.txt", row.names=FALSE)
d2 = read.table(file="tst1.txt", header=TRUE)
write.table(d2$g*5, file="tst2.txt", row.names=FALSE)
```

ToDo-11

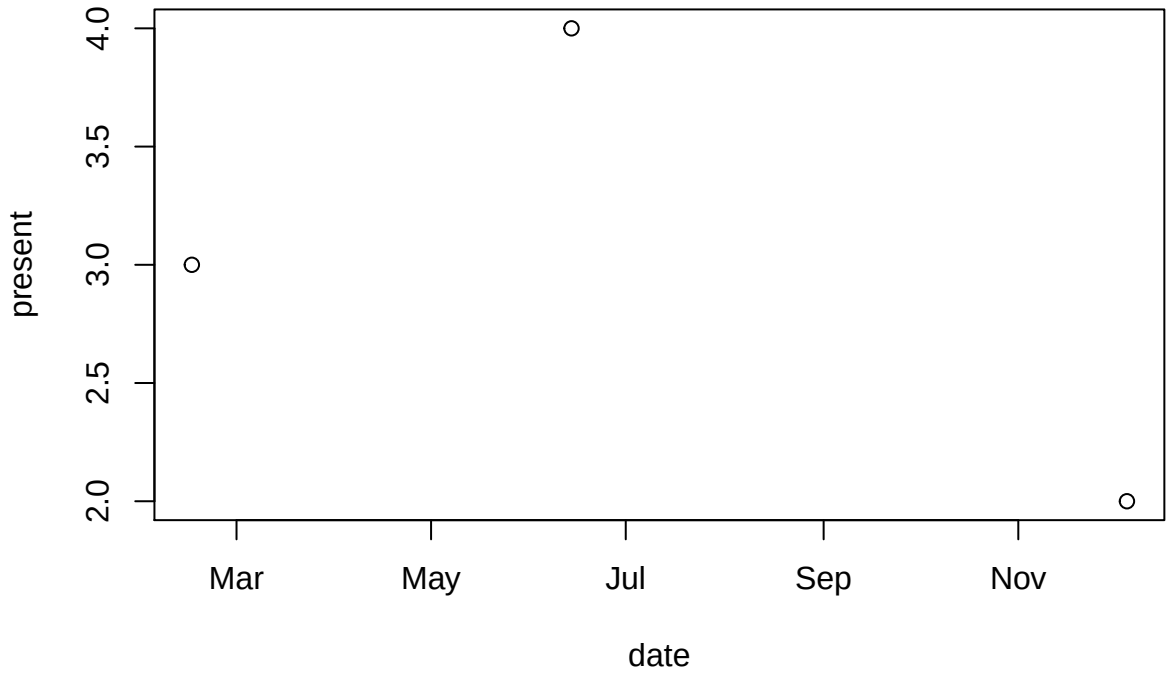
```
vec9=rnorm(100)
mean(sqrt(vec9))
```

```
## Warning in sqrt(vec9): NaNs produced
```

```
## [1] NaN
```

ToDo-12

```
date=strptime( c("20190215","20191205","20190614"),format="%Y%m%d")
present=c(3,2,4)
plot(date,present)
```



ToDo-13

```
vec14=seq(from=1, to=100, by=1)
a=c()
for(i in 1:100)
{
  if(vec14[i]<5)
  {
    a[i]=vec14[i]*5;
  }
  else if(vec14[i]>90)
  {
    a[i]=vec14[i]*10;
  }
  else
  {
    a[i]=vec14[i]*0.1;
  }
}
a
```

```
##   [1]    5.0   10.0   15.0   20.0    0.5    0.6    0.7    0.8    0.9    1.0
##  [11]    1.1    1.2    1.3    1.4    1.5    1.6    1.7    1.8    1.9    2.0
##  [21]    2.1    2.2    2.3    2.4    2.5    2.6    2.7    2.8    2.9    3.0
##  [31]    3.1    3.2    3.3    3.4    3.5    3.6    3.7    3.8    3.9    4.0
```

```
##  [41]    4.1    4.2    4.3    4.4    4.5    4.6    4.7    4.8    4.9    5.0
##  [51]    5.1    5.2    5.3    5.4    5.5    5.6    5.7    5.8    5.9    6.0
##  [61]    6.1    6.2    6.3    6.4    6.5    6.6    6.7    6.8    6.9    7.0
##  [71]    7.1    7.2    7.3    7.4    7.5    7.6    7.7    7.8    7.9    8.0
##  [81]    8.1    8.2    8.3    8.4    8.5    8.6    8.7    8.8    8.9    9.0
##  [91]  910.0  920.0  930.0  940.0  950.0  960.0  970.0  980.0  990.0 1000.0
```

ToDo-14

```
fx= function(arg1,arg2 )
{
  vec14[i]=arg1[i];
  for(i in length(vec14))
  {

  }
}
```

ToDo-15

```
fx <- function(vec14){
    vec14 + seq_along(vec14)
}
```