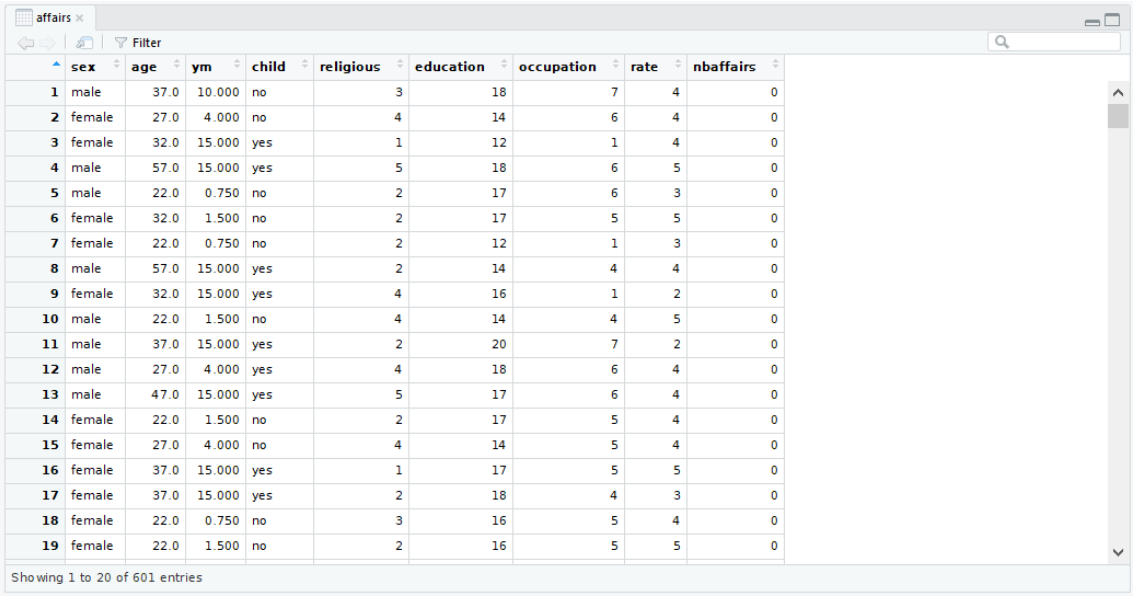
```
>affairs <- read.csv("affairs.csv")
>View(affairs)
```



affairs

Filter

	sex	age	ym	child	religious	education	occupation	rate	nbaffairs
1	male	37.0	10.000	no	3	18	7	4	0
2	female	27.0	4.000	no	4	14	6	4	0
3	female	32.0	15.000	yes	1	12	1	4	0
4	male	57.0	15.000	yes	5	18	6	5	0
5	male	22.0	0.750	no	2	17	6	3	0
6	female	32.0	1.500	no	2	17	5	5	0
7	female	22.0	0.750	no	2	12	1	3	0
8	male	57.0	15.000	yes	2	14	4	4	0
9	female	32.0	15.000	yes	4	16	1	2	0
10	male	22.0	1.500	no	4	14	4	5	0
11	male	37.0	15.000	yes	2	20	7	2	0
12	male	27.0	4.000	yes	4	18	6	4	0
13	male	47.0	15.000	yes	5	17	6	4	0
14	female	22.0	1.500	no	2	17	5	4	0
15	female	27.0	4.000	no	4	14	5	4	0
16	female	37.0	15.000	yes	1	17	5	5	0
17	female	37.0	15.000	yes	2	18	4	3	0
18	female	22.0	0.750	no	3	16	5	4	0
19	female	22.0	1.500	no	2	16	5	5	0

Showing 1 to 20 of 601 entries

```
> affairs[1:5,]
     sex age    ym child religious education occupation rate nbaffairs
1   male  37 10.00    no         3        18          7    4         0
2 female  27  4.00    no         4        14          6    4         0
3 female  32 15.00   yes         1        12          1    4         0
4   male  57 15.00   yes         5        18          6    5         0
5   male  22  0.75    no         2        17          6    3         0

> install.packages('plyr')
Installing package into 'C:/Users/Manoel/Documents/R/win-library/3.5'
(as 'lib' is unspecified)
also installing the dependency 'Rcpp'

trying URL 'https://cran.rstudio.com/bin/windows/contrib/3.5/Rcpp_1.0.1.zip'
Content type 'application/zip' length 4509658 bytes (4.3 MB)
```

```
downloaded 4.3 MB

trying URL 'https://cran.rstudio.com/bin/windows/contrib/3.5/plyr_1.8.4.zip'
Content type 'application/zip' length 1297896 bytes (1.2 MB)
downloaded 1.2 MB

package 'Rcpp' successfully unpacked and MD5 sums checked
package 'plyr' successfully unpacked and MD5 sums checked
> library(plyr)
> count(affairs, 'sex')
     sex freq
1 female  315
2   male  286
> summary(affairs[,2])
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
  17.50   27.00   32.00   32.49   37.00   57.00




> install.packages('Hmisc')
> library(Hmisc)

> describe(affairs[,2])
affairs[, 2]
       n  missing distinct     Info     Mean      Gmd
     601        0        9    0.965    32.49     10.1

Value       17.5  22.0  27.0  32.0  37.0  42.0  47.0  52.0  57.0
Frequency      6   117   153   115    88    56    23    21    22
Proportion 0.010 0.195 0.255 0.191 0.146 0.093 0.038 0.035 0.037


> install.packages('psych')
> library('psych')
```

```
> describe(affairs[,2])
   vars   n  mean   sd median trimmed  mad  min max range skew kurtosis   se
X1    1 601 32.49 9.29     32   31.37 7.41 17.5  57  39.5 0.88     0.21 0.38
```

item name

item number

number of valid cases

mean

standard deviation

median (standard or interpolated

trimmed mean (with trim defaulting to .1)

mad: median absolute deviation (from the median).

minimum

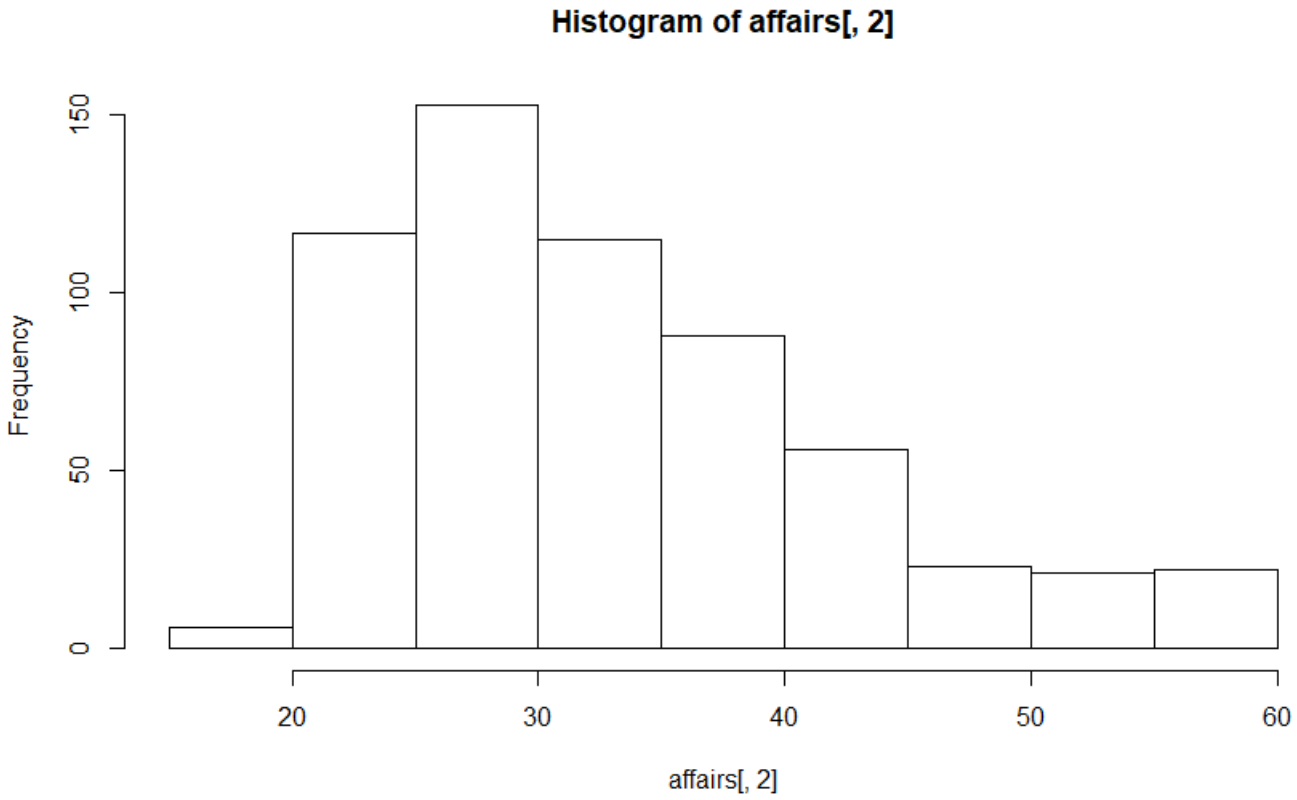
maximum

skew

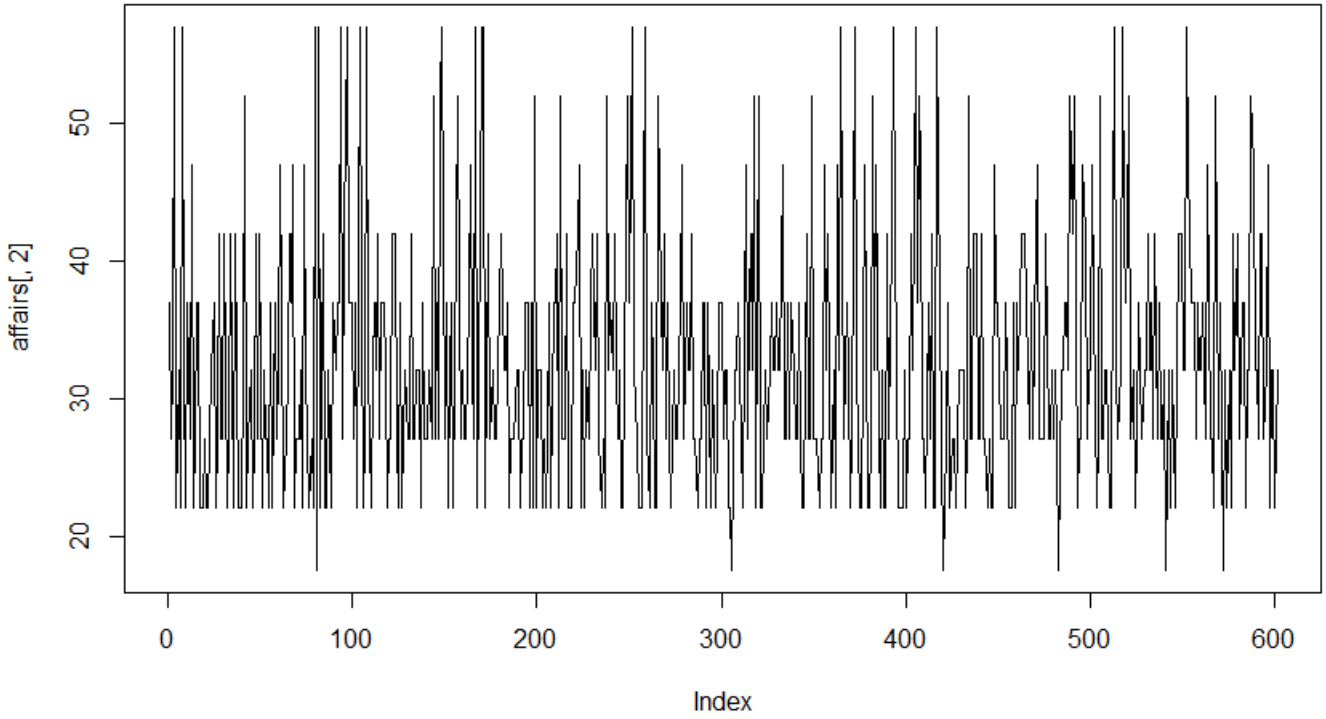
kurtosis

standard error

```
> hist(affairs[,2])
```

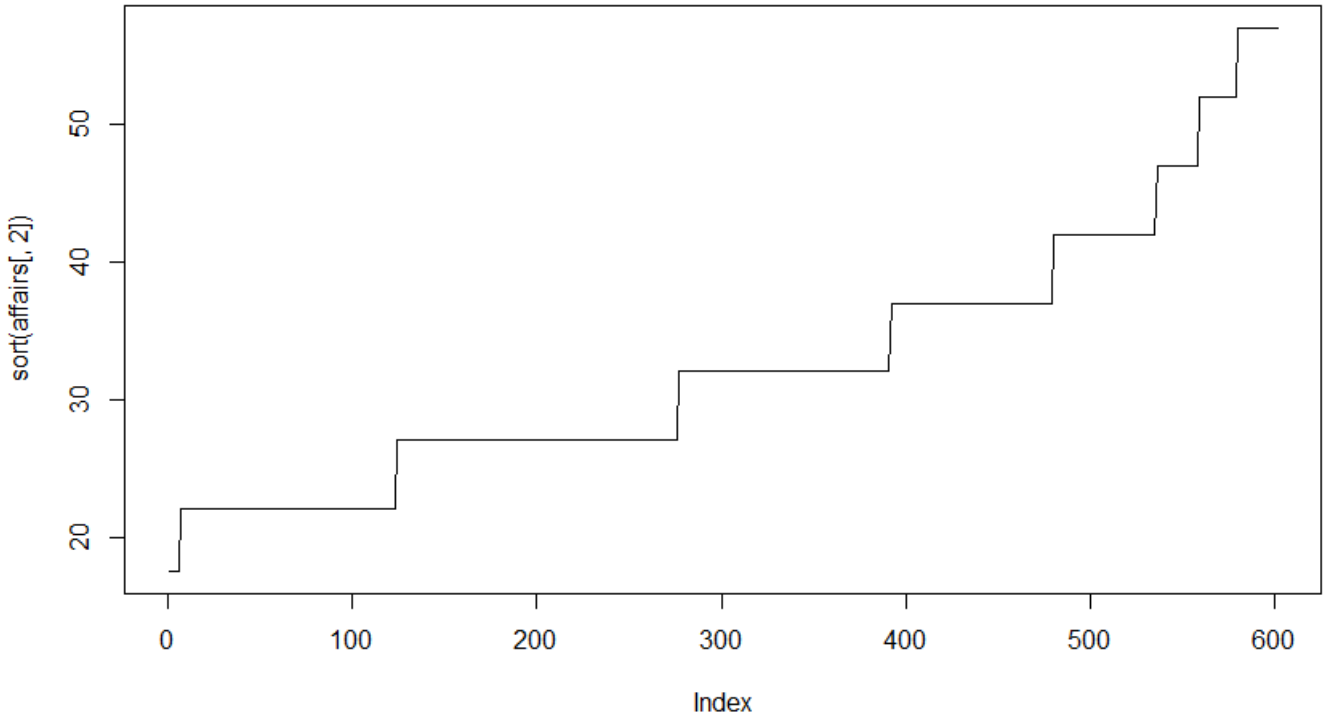

Histogram of affairs[, 2]
Frequency
0
50
100
150
20
30
40
50
60
affairs[, 2]

```
> describe(affairs)
            vars   n  mean   sd median trimmed  mad   min max range  skew kurtosis   se
sex*           1 601  1.48 0.50      1    1.47 0.00  1.00   2  1.00  0.10    -1.99 0.02
age            2 601 32.49 9.29     32   31.37 7.41 17.50  57 39.50  0.88     0.21 0.38
ym             3 601  8.18 5.57      7    8.26 8.15  0.12  15 14.88  0.08    -1.57 0.23
child*         4 601  1.72 0.45      2    1.77 0.00  1.00   2  1.00 -0.95    -1.09 0.02
religious      5 601  3.12 1.17      3    3.12 1.48  1.00   5  4.00 -0.09    -1.02 0.05
education      6 601 16.17 2.40     16   16.21 2.97  9.00  20 11.00 -0.25    -0.32 0.10
occupation     7 601  4.19 1.82      5    4.34 1.48  1.00   7  6.00 -0.74    -0.79 0.07
rate           8 601  3.93 1.10      4    4.07 1.48  1.00   5  4.00 -0.83    -0.22 0.04
nbaffairs      9 601  1.46 3.30      0    0.55 0.00  0.00  12 12.00  2.34     4.19 0.13


 > a<-subset(affairs, sex=='female')
 > describe(a)
            vars   n  mean   sd median trimmed  mad   min max range  skew kurtosis   se
 sex*           1 315  1.00 0.00      1    1.00 0.00  1.00   1  0.00   NaN      NaN 0.00
 age            2 315 30.80 8.65     27   29.73 7.41 17.50  57 39.50  0.98     0.45 0.49
 ym             3 315  8.02 5.63      7    8.07 8.15  0.12  15 14.88  0.09    -1.57 0.32
 child*         4 315  1.69 0.46      2    1.73 0.00  1.00   2  1.00 -0.80    -1.37 0.03
 religious      5 315  3.11 1.13      3    3.09 1.48  1.00   5  4.00  0.00    -0.99 0.06
 education      6 315 15.26 2.02     16   15.35 2.97  9.00  20 11.00 -0.38    -0.25 0.11
 occupation     7 315  3.38 1.93      4    3.36 1.48  1.00   7  6.00 -0.20    -1.62 0.11
 rate           8 315  3.94 1.15      4    4.09 1.48  1.00   5  4.00 -0.88    -0.23 0.06
 nbaffairs      9 315  1.42 3.31      0    0.51 0.00  0.00  12 12.00  2.35     4.23 0.19


> plot(affairs[,2])
```

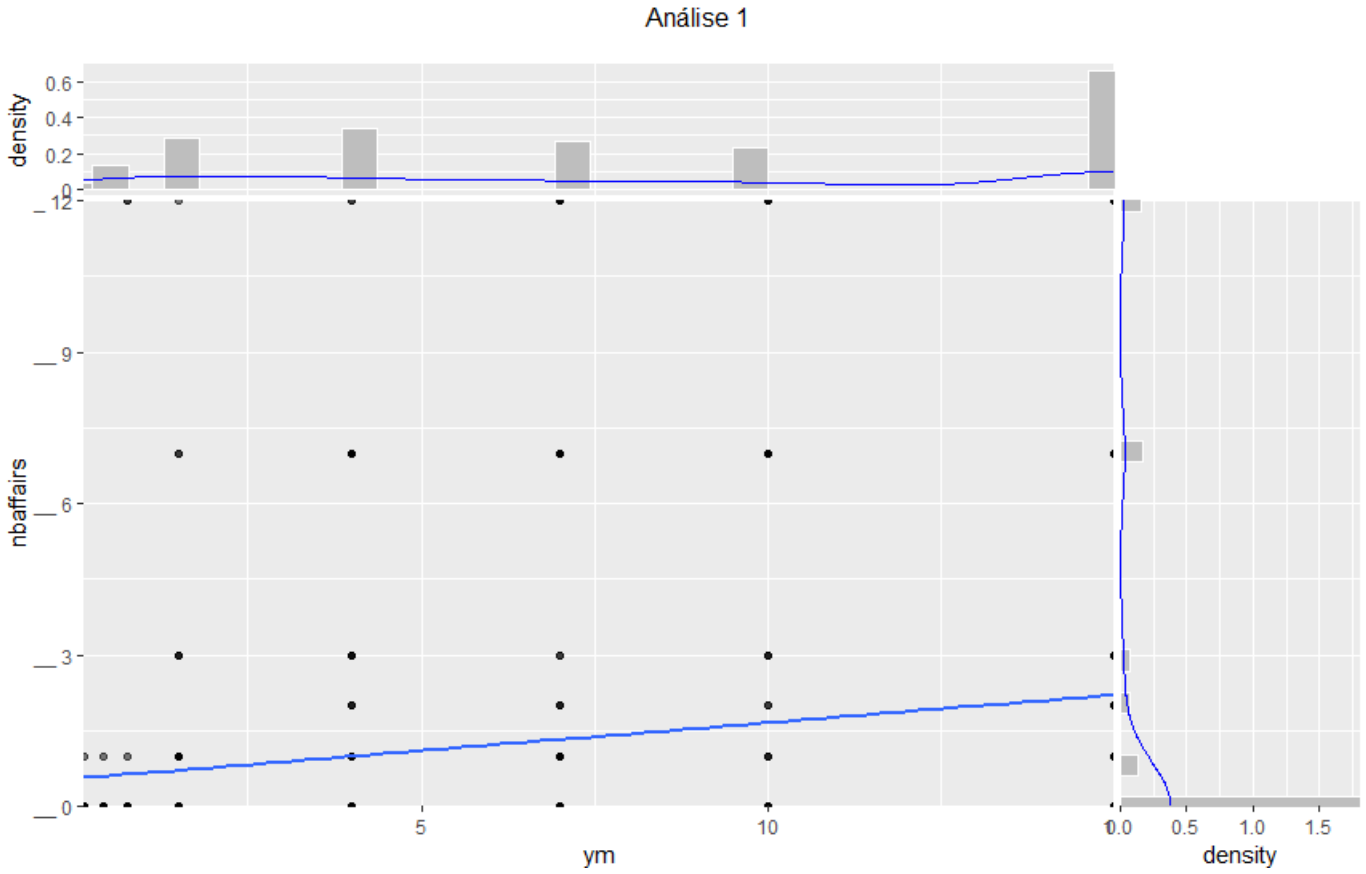



```
> plot(sort(affairs[,2]), type="l")
```

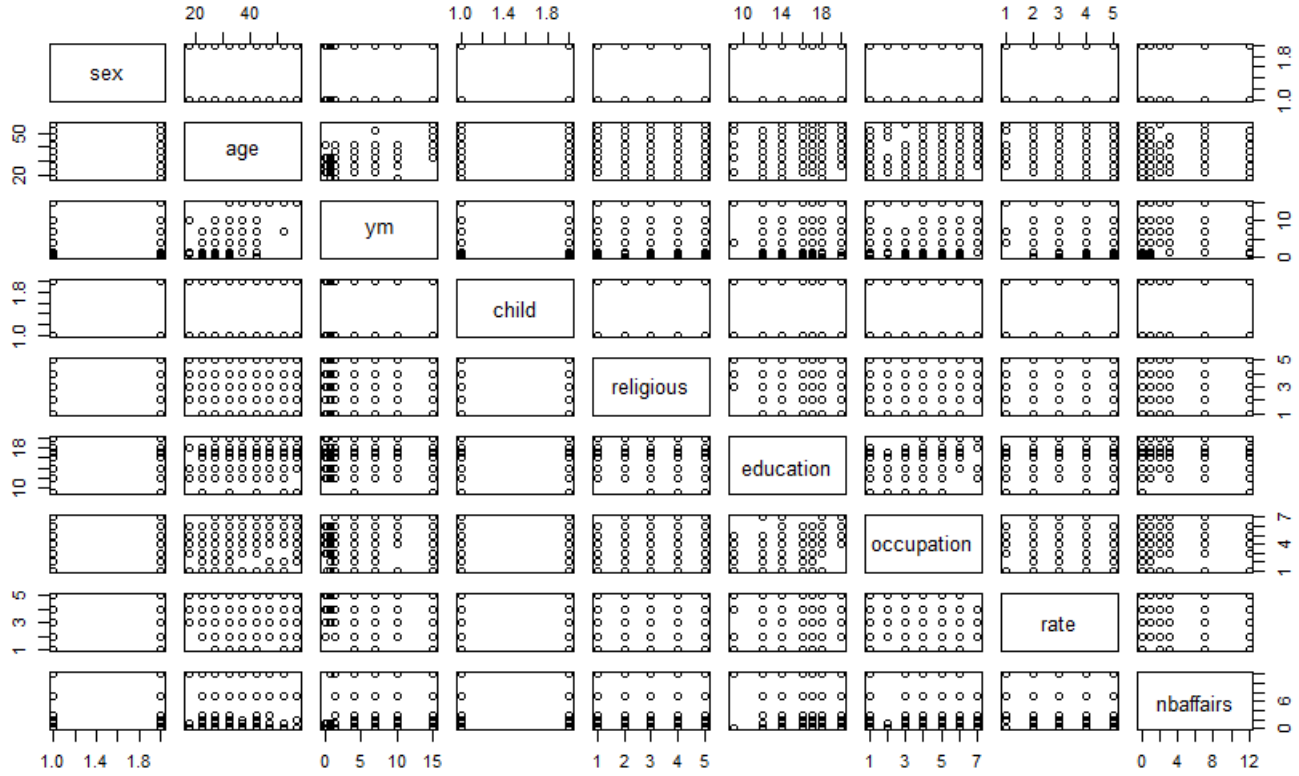
```
> cor(affairs$ym, affairs$nbaffairs)
[1] 0.1868417
```



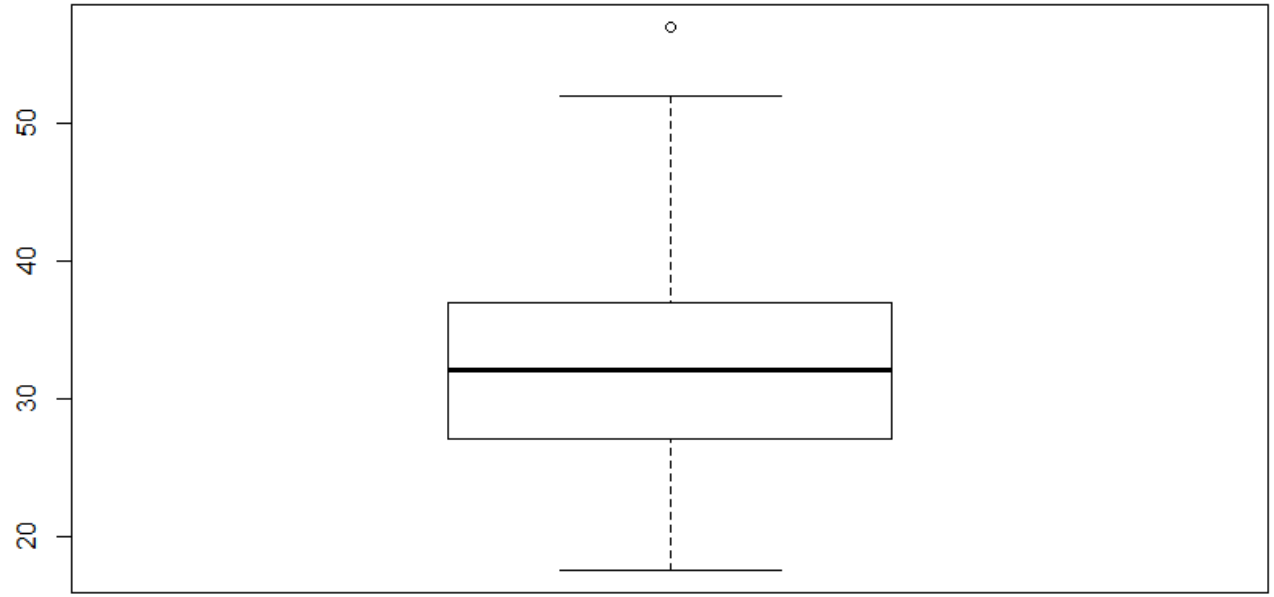

```
> cor(affairs$ym, affairs$nbaffairs)
[1] 0.1868417


> install.packages('WVPlots')
> library('WVPlots')
> ScatterHist(affairs, "ym", "nbaffairs", title= "Análise 1")
```




```
> plot(affairs)
```




```
➢ boxplot(affairs$age)
```




```
> cor(data.frame(sex=as.numeric(affairs$sex),child=as.numeric(affairs$child),  affairs$age, affairs$ym, affairs$religious, affairs$education, affairs$occupatio
                        sex        child affairs.age  affairs.ym affairs.religious affairs.education affairs.occupation affairs.rate affairs.nbaffairs
sex                1.000000000  0.069222338   0.1906411  0.03028252       0.007679445       0.397504680         0.46792315 -0.007523748       0.011736251
child              0.069222338  1.000000000   0.4219308  0.57285736       0.129351259      -0.006985882        -0.09272712 -0.196275616       0.104010057
affairs.age        0.190641080  0.421930815   1.0000000  0.77754585       0.193776931       0.134596015         0.16641254 -0.198999899       0.095237204
affairs.ym         0.030282521  0.572857364   0.7775458  1.00000000       0.218260672       0.040002716         0.04459201 -0.243118827       0.186841686
affairs.religious  0.007679445  0.129351259   0.1937769  0.21826067       1.000000000      -0.042571079        -0.03972232  0.024295777      -0.144501345
affairs.education  0.397504680 -0.006985882   0.1345960  0.04000272      -0.042571079       1.000000000         0.53360524  0.109303473      -0.002437441
affairs.occupation 0.467923152 -0.092727118   0.1664125  0.04459201      -0.039722324       0.533605242         1.00000000  0.017422273       0.049611758
affairs.rate       -0.007523748 -0.196275616  -0.1989999 -0.24311883       0.024295777       0.109303473         0.01742227  1.000000000      -0.279512403
affairs.nbaffairs  0.011736251  0.104010057   0.0952372  0.18684169      -0.144501345      -0.002437441         0.04961176 -0.279512403       1.000000000
```

>