

```
> info = read.csv(file.choose())
```

```
> info
```

	Subject	Age	Gender	Married	IncomeC	HealthC	ChildC	LifeSatC	SES	Smoke	Spirit
1	1	16	0	0	0	38	0	17	17	1	30
2	2	28	1	0	0	38	0	16	21	1	39
3	3	16	1	1	16	52	1	39	40	0	30
4	4	23	1	0	6	51	0	22	31	0	60
5	5	18	0	1	7	52	0	25	38	0	32
6	6	30	0	1	25	43	2	53	36	1	39
7	7	19	0	1	19	55	0	28	41	0	51
8	8	19	1	0	0	52	2	17	52	0	35
9	9	34	0	0	29	60	2	20	56	0	23
10	10	16	1	0	0	53	0	21	27	0	29
11	11	25	1	0	3	39	0	18	34	1	61
12	12	16	1	1	1	42	0	31	29	1	58
13	13	16	0	0	0	43	0	15	28	1	39
14	14	16	0	1	18	54	1	34	38	0	40
15	15	16	1	0	0	52	0	20	38	0	27
16	16	32	1	1	26	54	1	39	37	0	30
17	17	19	0	0	0	46	0	17	25	0	36
18	18	17	1	1	10	55	2	48	53	0	43
19	19	24	0	0	17	52	0	16	36	0	54
20	20	26	1	1	12	57	1	39	41	0	32

	Finish	LifeSat	Income
1	1	22	26
2	1	20	15
3	1	42	88
4	1	48	73
5	0	20	14
6	0	33	38
7	1	33	45
8	1	21	16
9	1	26	64
10	0	37	19
11	1	40	56
12	1	35	70
13	1	32	71
14	0	37	44
15	1	35	25
16	0	47	38
17	1	26	39
18	0	42	6
19	1	38	75
20	1	42	67

```
> info['Income']
```

	Income
1	26
2	15
3	88
4	73
5	14
6	38

```

7 45
8 16
9 64
10 19
11 56
12 70
13 71
14 44
15 25
16 38
17 39
18 6
19 75
20 67

```

```
> info$Income
```

```
[1] 26 15 88 73 14 38 45 16 64 19 56 70 71 44 25 38 39 6 75 67
```

```
> info$Gender = factor(info$Gender, labels = c('Female', 'Male'))
```

```
> info
```

```

Subject Age Gender Married IncomeC HealthC ChildC LifeSatC SES Smoke Spirit
1 1 16 Female 0 0 38 0 17 17 1 30
2 2 28 Male 0 0 38 0 16 21 1 39
3 3 16 Male 1 16 52 1 39 40 0 30
4 4 23 Male 0 6 51 0 22 31 0 60
5 5 18 Female 1 7 52 0 25 38 0 32
6 6 30 Female 1 25 43 2 53 36 1 39
7 7 19 Female 1 19 55 0 28 41 0 51
8 8 19 Male 0 0 52 2 17 52 0 35
9 9 34 Female 0 29 60 2 20 56 0 23
10 10 16 Male 0 0 53 0 21 27 0 29
11 11 25 Male 0 3 39 0 18 34 1 61
12 12 16 Male 1 1 42 0 31 29 1 58
13 13 16 Female 0 0 43 0 15 28 1 39
14 14 16 Female 1 18 54 1 34 38 0 40
15 15 16 Male 0 0 52 0 20 38 0 27
16 16 32 Male 1 26 54 1 39 37 0 30
17 17 19 Female 0 0 46 0 17 25 0 36
18 18 17 Male 1 10 55 2 48 53 0 43
19 19 24 Female 0 17 52 0 16 36 0 54
20 20 26 Male 1 12 57 1 39 41 0 32

```

```

Finish LifeSat Income
1 1 22 26
2 1 20 15
3 1 42 88
4 1 48 73
5 0 20 14
6 0 33 38
7 1 33 45
8 1 21 16

```

```

9    1    26    64
10   0    37    19
11   1    40    56
12   1    35    70
13   1    32    71
14   0    37    44
15   1    35    25
16   0    47    38
17   1    26    39
18   0    42     6
19   1    38    75
20   1    42    67

```

```
>
```

```
info$Married = factor(info$Married, labels = c('Unmarried', 'Married'))
```

```
> info
```

```

Subject Age Gender Married IncomeC HealthC ChildC LifeSatC SES Smoke
1      1  16 Female Unmarried    0   38    0   17 17    1
2      2  28  Male Unmarried    0   38    0   16 21    1
3      3  16  Male  Married   16   52    1   39 40    0
4      4  23  Male Unmarried    6   51    0   22 31    0
5      5  18 Female  Married    7   52    0   25 38    0
6      6  30 Female  Married   25   43    2   53 36    1
7      7  19 Female  Married   19   55    0   28 41    0
8      8  19  Male Unmarried    0   52    2   17 52    0
9      9  34 Female Unmarried   29   60    2   20 56    0
10     10  16  Male Unmarried    0   53    0   21 27    0
11     11  25  Male Unmarried    3   39    0   18 34    1
12     12  16  Male  Married    1   42    0   31 29    1
13     13  16 Female Unmarried    0   43    0   15 28    1
14     14  16 Female  Married   18   54    1   34 38    0
15     15  16  Male Unmarried    0   52    0   20 38    0
16     16  32  Male  Married   26   54    1   39 37    0
17     17  19 Female Unmarried    0   46    0   17 25    0
18     18  17  Male  Married   10   55    2   48 53    0
19     19  24 Female Unmarried   17   52    0   16 36    0
20     20  26  Male  Married   12   57    1   39 41    0

```

```
Spirit Finish LifeSat Income
```

```

1    30    1    22    26
2    39    1    20    15
3    30    1    42    88
4    60    1    48    73
5    32    0    20    14
6    39    0    33    38
7    51    1    33    45
8    35    1    21    16
9    23    1    26    64
10   29    0    37    19
11   61    1    40    56
12   58    1    35    70
13   39    1    32    71
14   40    0    37    44

```

```

15  27  1  35  25
16  30  0  47  38
17  36  1  26  39
18  43  0  42  6
19  54  1  38  75
20  32  1  42  67

```

```
> summary(info)
```

```

  Subject      Age      Gender      Married      IncomeC
Min.   :1.00  Min.   :16.00 Female: 9  Unmarried:11  Min.   :0.00
1st Qu.:5.75  1st Qu.:16.00  Male :11  Married   : 9  1st Qu.:0.00
Median :10.50 Median :19.00                      Median :6.50
Mean   :10.50 Mean    :21.30                      Mean   :9.45
3rd Qu.:15.25 3rd Qu.:25.25                      3rd Qu.:17.25
Max.    :20.00 Max.    :34.00                      Max.    :29.00
  HealthC      ChildC      LifeSatC      SES      Smoke
Min.   :38.0  Min.   :0.0  Min.   :15.00  Min.   :17.00  Min.   :0.0
1st Qu.:43.0  1st Qu.:0.0  1st Qu.:17.00  1st Qu.:28.75  1st Qu.:0.0
Median :52.0  Median :0.0  Median :21.50  Median :36.50  Median :0.0
Mean   :49.4  Mean   :0.6  Mean   :26.75  Mean   :35.90  Mean   :0.3
3rd Qu.:54.0  3rd Qu.:1.0  3rd Qu.:35.25  3rd Qu.:40.25  3rd Qu.:1.0
Max.    :60.0  Max.    :2.0  Max.    :53.00  Max.    :56.00  Max.    :1.0
  Spirit      Finish      LifeSat      Income
Min.   :23.0  Min.   :0.0  Min.   :20.0  Min.   :6.00
1st Qu.:30.0  1st Qu.:0.0  1st Qu.:26.0  1st Qu.:23.50
Median :37.5  Median :1.0  Median :35.0  Median :41.50
Mean   :39.4  Mean   :0.7  Mean   :33.8  Mean   :44.45
3rd Qu.:45.0  3rd Qu.:1.0  3rd Qu.:40.5  3rd Qu.:67.75
Max.    :61.0  Max.    :1.0  Max.    :48.0  Max.    :88.00

```

```
> infomarried = subset(info, info$Married=='Married')
```

```
> infomarried
```

```

  Subject Age Age Gender Married IncomeC HealthC ChildC LifeSatC SES Smoke Spirit Finish LifeSat
Income
3   3 16  Male Married   16   52   1   39 40   0   30   1   42   88
5   5 18  Female Married   7   52   0   25 38   0   32   0   20   14
6   6 30  Female Married  25   43   2   53 36   1   39   0   33   38
7   7 19  Female Married  19   55   0   28 41   0   51   1   33   45
12  12 16  Male Married   1   42   0   31 29   1   58   1   35   70
14  14 16  Female Married  18   54   1   34 38   0   40   0   37   44
16  16 32  Male Married  26   54   1   39 37   0   30   0   47   38
18  18 17  Male Married  10   55   2   48 53   0   43   0   42   6
20  20 26  Male Married  12   57   1   39 41   0   32   1   42   67

```

```
> table1 = table(info$Gender)
```

```
> table1
```

Female	Male
9	11

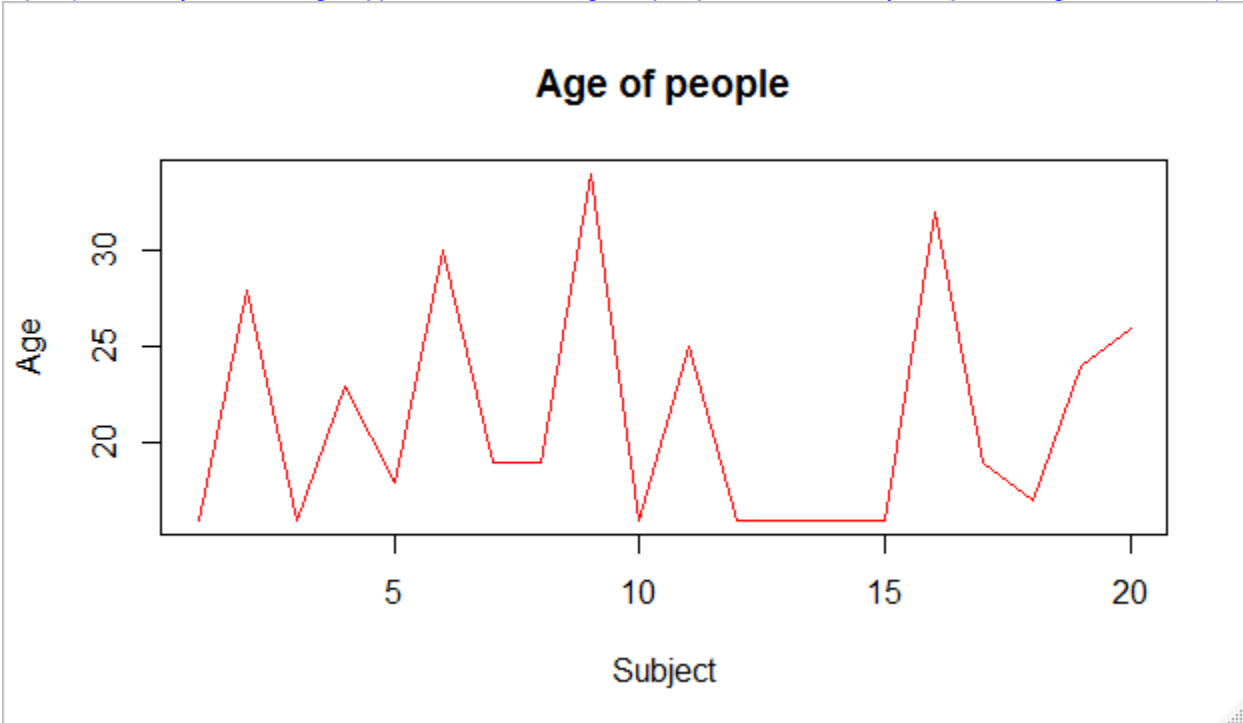
```
> table2 = table(info$Gender, info$Age)
> table2
```

	16	17	18	19	23	24	25	26	28	30	32	34
Female	3	0	1	2	0	1	0	0	0	1	0	1
Male	4	1	0	1	1	0	1	1	1	0	1	0

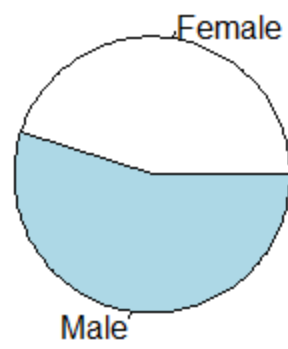
```
> plot(info$Subject, info$Age, type = 'b', main = "Age of people", xlab = 'Subject', ylab = 'Age')
```



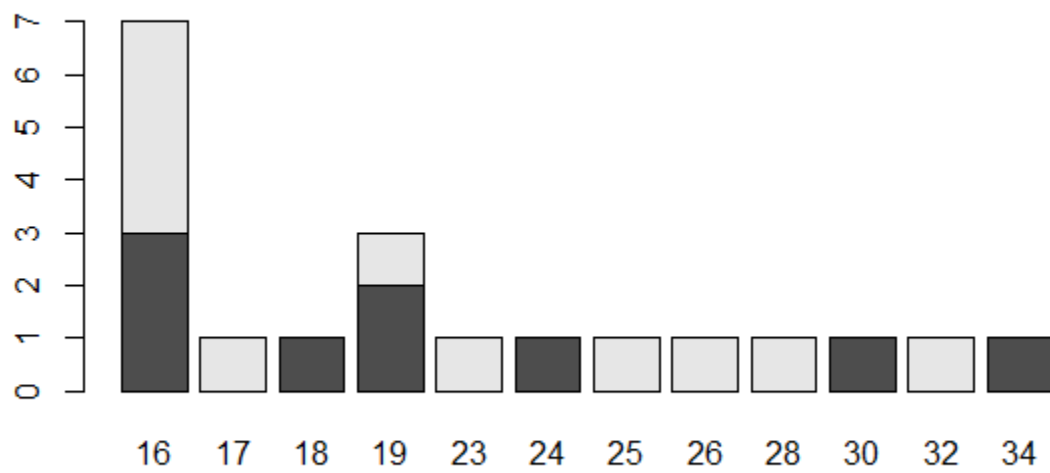
```
> plot(info$Subject, info$Age, type = 'l', main = "Age of people", xlab = 'Subject', ylab = 'Age', col = 'red')
```



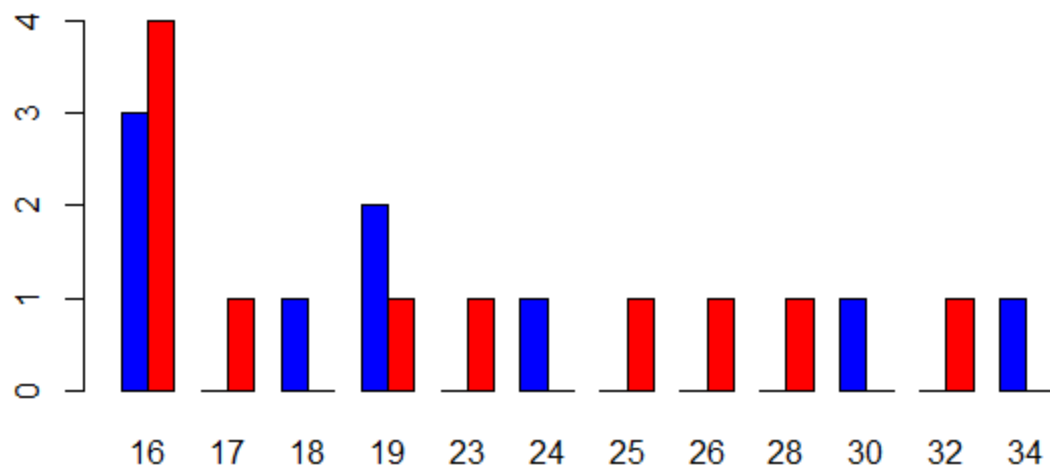
```
> pie(table1)
```



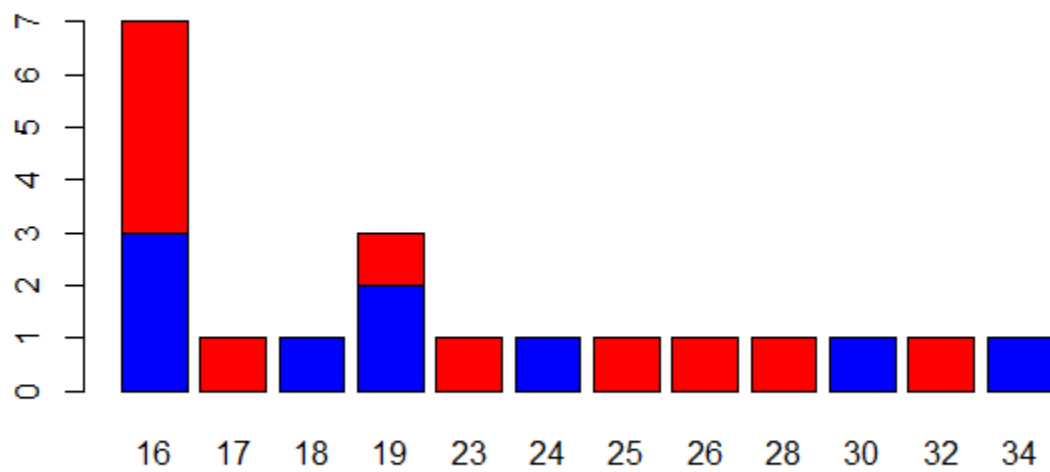
> barplot(table2)



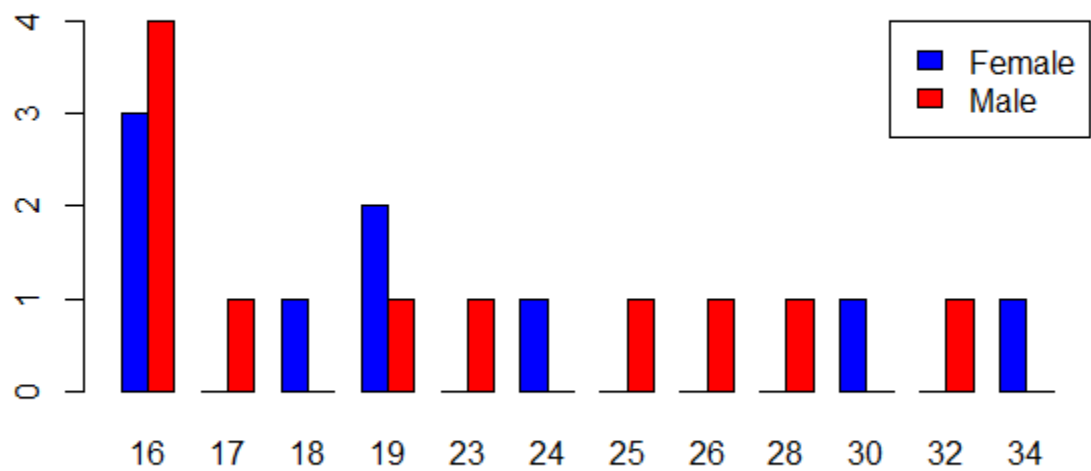
```
> barplot(table2, col=c('Blue', 'Red'), beside=T)
```



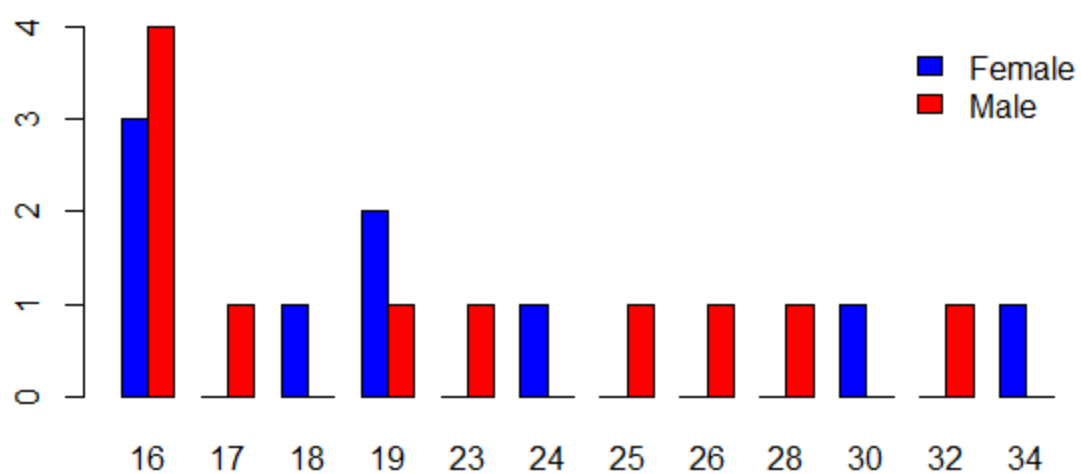
```
> barplot(table2, col=c('Blue', 'Red'), beside=F)
```




```
> barplot(table2, col=c('Blue', 'Red'), beside=T)  
> legend('topright', legend=row.names(table2), fill = c('blue', 'red'))
```



```
> barplot(table2, col=c('Blue', 'Red'), beside=T)  
> legend('topright', legend=row.names(table2), fill = c('blue', 'red'), bty = 'n')
```



```
> boxplot(info$Age~info$Married, col=c('blue', 'red'))
```

