HW 3: Vector

For the second homework we explore the vectors.

Practice

Import `gss` dataset:

```
gss<-read.csv("gss.csv")
```

1. How many missing values for the variable `marital`?

   What is the percentage of *female* respondents (excluding missing values), try function `prop.table()`?

   What is the percentage of *male* respondents who felt *"NOT TOO HAPPY"*?

   What is the percentage of *married* respondents who `age` between 30 and 40 (including the boundaries)?

   What is the average age of *female married* respondents who took the survey from 1999 and 2010 ?

2. Make a summary of `year`. What type of vector is the `year` variable? It should be treated as a factor variable. Change it into a new factor variable `YEAR` in the gss data. Make a new summary of `YEAR`, which year had the most participants?

   Use the function `tapply` to get average `age` of respondents by `YEAR`. What years had the oldest and the youngest average age? (look up `tapply()`)

3. Reorder the levels in `degree` of gss data based on the number of years in education. Provide the appropriate plot to visualize the distribution of the new `degree` variable.

4. Write down your homework in *Rmarkdown* and generate it to a HTML document with your title and your name. Submit the homework on Canvas.