

MV013 Statistics for Computer Science

Assignment

First name Surname

UCO

Field of study

Faculty of Informatics
Masaryk University

May 23, 2018

Exercise 1

Text. Commentary on the approach to solving the exercise, theoretical derivation if the assignment asks for it.

Text. Paragraphs are separated by an empty line.

Implementation in R

```

1 functions in R ...
2 ## function for calculating basic characteristics
3 basicchar <- function(x){
4   v1 <- c(length(x), round(mean(x),2), round(sd(x),2))
5   return(v1)
6 }
7 # calculating basic characteristics of women and of men
8 women <- basicchar(data$skull.height[data$sex == 'F'])
9 men <- basicchar(data$skull.height[data$sex == 'M'])
10 tab <- rbind(women, men)
11 # plotting boxplots
12 boxplot(data$skull.height[data$sex == 'F'],
13         data$skull.height[data$sex == 'M'],
14         col = "steelblue",
15         xlab = "",
16         ylab = "Skull Height (mm)",
17         xaxt = "n",
18         boxwex = 0.5)
19 axis(1, at = 1:2, labels = c("women","men"))
20 # adding averages
21 points(tab[,2], col = "red", pch = 16)

```

You will submit your complete code in an .R file or an .Rnw file according to the instructions for the assignments. Only required functions or parts of code crucial to the exercise will be inserted here.

Results and interpretation

Text. Results in table or graphic form. Commentaries and interpretation of the results.

Interpretation. Text. Commentary relating to tables and figures. What can we infer about the differences in skull height between men and women from the values in the table? How can we know from the figure, whether our data come from a normal distribution?

Gender	Number of individuals	Average skull height (mm)	Standard deviation
Women	20	127.70	6.86
Men	40	135.54	5.20

Table 1: Basic characteristics of skull height of women and of men

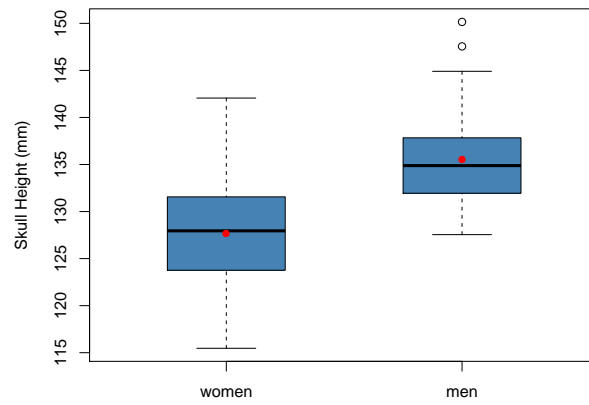


Figure 1: Boxplots of skull height of women and of men

Exercise 2

Don't forget to check, whether you included all required outputs in each exercise.