

Exercise 1

You are planning to change your cell phone plan. Therefore you are analyzing your phone calls using R. The last 10 calls took 8, 17, 2, 3, 31, 7, 14, 1, 1, 11 minutes. Create a corresponding vector in R and calculate the overall costs assuming costs of 49 Cent per minute.

Exercise 2

Use R to determine how many of the calls in Exercise 1 did take longer than 10 minutes. How long are you talking on (arithmetic) average, how long with regard to the median? Compute variance and standard deviation of your calls duration as well.

Exercise 3

Find out what the function `rnorm()` is doing and generate data using `dat <- rnorm(10, mean = 10, sd = 1)`. Is the logarithm of the third, fifth and ninth observation greater than 2.3?

Exercise 4

Imagine you are recording for your friends: vegetarian yes/no. Think about 5 friends and their responses.

- (a) Make up 5 persons and save their answer with respective name as vector or data frame in R.
- (b) Imagine barbecue season has started and one person changes his/her mind. Change the corresponding entry/ies in the R vector or data frame.

Exercise 5

Consider again Exercise 4.

- (a) Use a standard editor and create an appropriate txt-file containing your data, with the first column containing the names; the second column should say whether the person is vegetarian (yes/no). Read your data using `read.table()`.
- (b) Create an analogue csv-file (e.g. using Excel) and import it into R.
- (c) Add another column 'vegan (yes/no)' to your data frame in R.
- (d) Imagine again barbecue season has started and one person changes his/her mind. Change the corresponding entry/ies in the R data frame and export it to a `.txt` or `.csv` file.