

Assignment 1

(note: **no cover page** necessary; **be concise**, a solution is typically a **few pages**, not 10 pages, excl. appendix. In particular, for every page exceeding the 10th page and for every quarter hour of late submission, 0.1 (Assignment 1) or 0.2 points (Assignments 2-7) are deducted.) In addition:

If you don't adhere to other rules presented here, the grader can subtract up to 1 point (out of 10 for Assignment 1)/up to 2 (out of 20 for the others).

Exercise 1.1

Do not copy the question, just write the answer. Write a compact answer, in your own words. It should convince the grader that you understand the theory and can interpret the results. **No lengthy answers, but, of course, do not leave out any essentials**, since it should convince us that you understand the theory.

Always use proper rounding. In most cases 2-3 digits after the decimal point suffice. For instance:

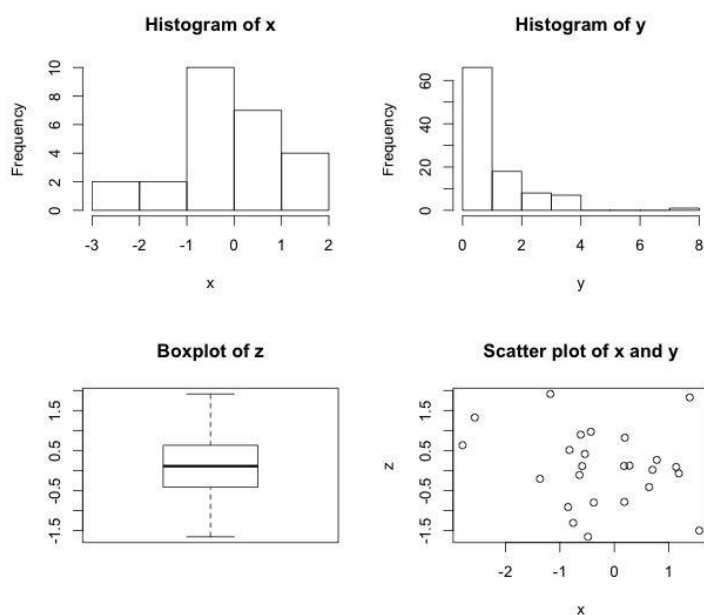
• $0.015435234 \rightarrow 0.015$

• $0.4232 \rightarrow 0.42$

• $7e-4 = 0.0007 \rightarrow 0.001$

Make sure your report is uploaded as text that can be copied (and scanned by Urkund) and not as a picture. Otherwise, your submission is not acceptable.

Figures can be small, if details are still visible. You can put **two figures next to each other**. Use `par(mfrow=c(n,m))` to create n by m graphs in one picture in R.



Make sure your figures are neat:

- axis labels
- a title
- it shows all the data
- and are always described in the text

(perhaps new page for appendix)

Appendix

Exercise 1.1

```
set.seed(128912)
x=rnorm(25)
hist(x)
y=rexp(100)
hist(y)
```

Put only relevant R-code in the appendix (i.e. delete all unnecessary lines, which didn't work).

In particular, the R-code must be executable, i.e. it mustn't contain `>`.

Do not place any explanations here.