

Homework 5: Lab work, 6 points

December 13, 2011

Instruction

- **Deadline:** 10th, Jan, 2012. Hand in by e-mail.
- The lab assignment can be solved by individual or by team (up to 3 students). The lab assignment should be written in word or pdf form.
- Solutions will be graded, and may give points that are added to the result of the written examination, as described in the course description. The points from the home assignments can only be added to the results of the written examinations in December, 2011 and February, 2012. The points cannot be added to results from examinations written at later points of time. Home assignments that are handed in too late (i.e. after 10, Jan) give 0 points. It is not possible to get extra points by completing or correcting solutions after the deadline.

Tasks

Choose one data set from some experiment you feel it is interesting, analysis the data by using the knowledge from Experiment Design course and by R or SAS, and then write a short report. The report at least contains the following parts:

- Background of data.
- Statistical analysis (such as ANOVA, model adequacy checking, Test ...).
- Conclusions.
- In appendix you need to provide the codes you have used.

In case you do not have any data set, there is a data set “Division.txt” on our course website. The background is: Three methods for dividing numbers were compared in a pedagogical experiment comprising 15 randomly selected school classes. Five randomly selected school classes were taught the method “Short division”, five randomly selected school classes were instead trained in “Long division”, and the remaining five school classes were taught the method “Chunking”. After one month, five boys and five girls were randomly selected from each class. The pupils were given a test in division. The data set Division comprises the test results.