Notes for Exercises in Session 4

- x:7; 1:110,127,111,113,117,121,145; 5:33; x:4(c); 5:49,51; home assign.2001:1; x:8; 3:77,79 (1:123,144; 4:10,60; 5:47,53; x:9)

Outline of lab session:

- scheduling: first lab review this week? − Tuesday or Wednesday?,
- follow-up from lecture: first steps of *estimation* (4L−13/14/15/16),
- Minitab demonstrations:
  - prob. distrib. calculations: overview on 4L−3/12 for normal/ binomial distrib.[1]; note also the rules:
$$\binom{n}{0} = 1, \quad \binom{n}{1} = n, \quad \binom{n}{2} = n(n-1)/2.$$
  - probability plots and normality tests [2],
- summary worksheet review (3:30pm): S.6:1, S.5:3,
- individual work on exercises (note: recommended order, and extras).

Notes and questions for specific exercises:

- $1.110, 1.111, 1.117, 1.121$: for some of these, compute *both* using statistical table and software, then use your preferred method,
- $1.123, 1.127$: calculate first the results by standardization, check them afterwards using software.
- 1.145: the data have 224 obs.; `sex` is coded as 1(men)/2(women),
- $5.49, 5.51$: compute the probabilities both using statistical table and Minitab/Stata/R,
- home2001.1: data and solution at exercises webpage.

[1] `Calc-Probability Distributions` and `Graph-Probability Distribution Plot` menus.

[2] `Graph-Probability Plot` or `Stat-Basic Statistics-Normality Test` menus; Stata commands/R functions: `qnorm`/`qqnorm` (quantile plot) and `swilk, sfrancia, sktest`/`shapiro.test` (normality test).