Notes for Exercises in Session 6

- 6:87,140,70,85,95; 7:50,4,73,74,64; 6:68,103; x:12 (6:46,96,108,142; home assign.2009:2) — note suggested (non-random!) order,
- practice also a proper layout of the statistical analysis: notation, assumptions/model, calculations, conclusions (see solutions for suggested layout),
  - in particular, write conclusions (also) in "non-technical" terms.

Outline of lab session:

- follow-up on statistical tests and 1-sample inference (unknown σ) (6L−8/12/13),
- Minitab demonstrations[1]: z-tests + t-distribution inference:
  - `Stat-Basic Statistics-1 Sample Z` and `...-1 Sample t`,
- summary worksheet review (3:30pm): S.7:1(a,b); "Extra" (6L−14),
- individual work on the remaining exercises.

Notes and questions for specific exercises:

- 6.140, 7.73, 7.74: analyse first manually, using formulae and calculator, repeat using software; state the assumptions of the analyses,
- 6.68: not a normal distribution problem, so use general testing principles instead,
- 6.95: see page 6L−7 on using confidence intervals for statistical tests,
- x:12: based on Statistical Significance applet,
- home2009.2: skip parts (5)−(6) based on simulation.

[1] For Stata and R, use `ttest` command and `t.test` function, respectively, for t-based inference; see solution program files for z-based inference.