

NOTES FOR EXERCISES IN SESSION 6

- 6:87,140,70,85,95; 7:50,4,73,74,64; 6:68; x:12 (6:46,103,108,142; 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 1-sample inference with unknown σ (6L–11/12/13/14),
- Minitab demonstrations¹: z -tests + t -distribution inference:
 - * Stat-Basic Statistics-1 Sample Z and ...-1 Sample t,
- summary worksheet review (3:30pm): S.7:1a,b,
- 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.