Lab Session 9

Outline of lab session:

- some review of analysis after the ANOVA table + Kruskal-Wallis test,
- individual work on the exercises + time for questions. . . : 12:1,9,25; x:17; 12:**54**; 6:7; 12:**55**,40,43; x:**18**; 27:22,**42** (12:27; final2016:2; AI:9) — note suggested order (as usual),
- summary worksheet: S.11:3 (data: `satscore`); Moodle Quizzes 3-5.

Minitab for one-way ANOVA[1]: `Stat-ANOVA-One Way` menu:

- ignore residual plots for now,
- for Bonferroni corrections, use `Comparisons` menu and Fisher (LSD, unadjusted) method, with manual adjustments[2],
- method without assuming equal variances not in VHM 801.

Notes and questions for specific exercises:

- 12.1, 12.9, 12.25: from the lecture (9L−11 has solutions and outline for 12.25; (a,b) in 12.1/12.9 already discussed in lecture),
- 12.25, 12.27: on construction of ANOVA tables by manual calculations; in 12.27, forget about R^2,
- 27.22: use software for the Kruskal-Wallis test; analyze also by one-way ANOVA procedure and discuss the models' assumptions,
- 27.42: for pairwise comparisons after Kruskal-Wallis test, use two-sample methods for all pairs with a Bonferroni-adjustment for multiple testing (IPS Exercise 15.47),
- final2016:2: recommended — text + solution at 2016 homepage.

[1] Stata for one-way ANOVA: `Statistics-Linear-ANOVA/MANOVA-Oneway`. menu, or `oneway` command; R: `lm` function with model formula, see R programs.

[2] Alternatively, use `Stat-ANOVA-General Linear Model` menu with submenus `Fit General Linear Model` followed by `Comparisons`.