

NOTES FOR EXERCISES IN SESSION 13

- 13:3,4,19,15,16,31; 26:33,37; home assign.2003:4; final2009:3 (26:17,18,19; home assign.2011:4b); note suggested order,
- review for 2-way ANOVA: slides 13L–14/15,
- review of Minitab commands (see below),
- still time for review requests for Thursday’s lecture.

Minitab for 2-way ANOVA¹:

- 2-way table of descriptive statistics using `Stat-Tables-Descriptive Statistics`, enter outcome in submenu `Associated Variables`,
- brief analysis for balanced data: `Stat-ANOVA-Balanced ANOVA`, and `Main Effects and Interaction Plots` menus based on means,
- detailed analysis: `Stat-ANOVA-General Linear Model`, giving²
 - * estimates and means with SEs (check in `Options` submenu),
 - * extra menus for `Factorial Plots`, `Comparisons`, `Predictions`,
- Friedman’s test: in `Stat-Nonparametrics` menu.

Notes and questions for specific exercises:

- 13.3, 13.4: from lecture 13–L (with solution there),
- 26.33: analyze also on square-root scale: compare the results and include a full post-ANOVA table analysis,
- home assign.2003:4: most detailed 2-way examples in course,
- final2009:3 (recommended): exam question involving 2-way ANOVA.

¹ Stata: brief analysis by `Stat-Linear Models-ANOVA-Analysis` menu, using model formulae; for detailed analysis (Stata/R), see 2-way ANOVA template files.

² Many advanced features, including continuous predictors (covariates).