

## LAB SESSION 7

### Outline of lab session:

- relatively brief follow-up from lecture (7L–12/13/14/15),
- Minitab demonstrations:
  - \* Proportions in Minitab<sup>1</sup>: `Stat-Basic Statistics` menu; also useful: `Graph-Probability Distribution Plot` menu,
  - \* Nonparametric methods in Minitab<sup>2</sup>: `Stat-Nonparametrics` menu,
- summary worksheets (3:30pm): S.7:2(a); S.8:8,7,
- individual work on the remaining exercises:  
8:21,84,1,85,62; x:14; 7:68; 27:8,19; x:15 (8:98; x:16; AI:7; midterm 2019) — note recommended order!
- use of software: necessary for Chapter 27 exercises, but for Ch. 8 exercises *only needed* for exact CIs and  $P$ -values.

### Notes and questions for specific exercises:

- 7.68: problem should refer to 7.58 (data in `ex07_058.mtw`),
- 8.1, 8.21: large-sample/normal approx.  $\sim$  “classical”,
- 8.84, 8.85: compute both manually and using software (after deciding on the most appropriate method to use),
- x.16: calculate rank test statistic manually (not  $P$ -value!),
- midterm 2019: use for review after the other problems.

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<sup>1</sup> Stata: `ci`, `prtest`, `bitest` commands; R: `prop.test`, `binom.test` functions — more details in solution program files.

<sup>2</sup> Stata: `Statistics-Summaries-Nonparametric` menu, or Stata/R: directly via commands (see solution programs).