

HS 267 Lecture Notes 2/28/08

1. Comments about logarithms
 - a. The concept of logs and exponents is discussed on p. 137
 - b. Remember: $\ln(1) = 0$
 - c. Logs move like a "Richter scale," so a log of 1 is an *order of magnitude* more than a log of 0, for example
 - d. Always use base e unless specified otherwise
2. Professional calculation
 - a. At least 4 significant figures during hand-calculations; round only before reporting.
 - b. Check calculations with [software] tools when possible (reason: confidence, accuracy, time savings)
 - c. Hand calculations and computer calculations complement each other in the learning process
3. Profession analysis and reporting
 - a. Always combine descriptive results with inferential results
 - i. Example 1: You have a single sample and binary outcome: report the proportion and confidence interval
 - ii. Example 2: You have a R-by-2 table: Report relevant proportions and the χ^2 stat and *P*-value.
 - iii. Example 3: You have a 2-by-2 table: Report RR estimate *and* confidence interval
 - iv. [The are just examples; other options exist as long as you have both descriptive and inferential results combined in a meaningful way.]
 - b. *Discussion*: Exercise 17.20
 - c. Language must be concise, accurate, and grammatical. (Don't use words you don't understand. Avoid hype.)
 - d. Know your [lay or professional] audience.
 - e. Provide enough information so that professionals can replicate key findings
4. Review list (handout)
5. Formula sheet
6. Exam
 - a. I'll supply copies of Tables B - F and the formula sheet.
 - b. The test is in two sections: Analyses That Involve Calculations (30 points) and Problems Involving No Or Minimal Calculations (10 points)