Stat 401 Homework 6: Due Tuesday, Oct. 17 by 1:40pm

If you turn in this homework prior to Monday, Oct. 16 by 5:00pm (either to my mailbox in the Math Office, or under my office door – Wilson 2-195), then I will grade it and have it back to you in class on Tuesday. Otherwise, I will grade it Tuesday night and have it available to pick up during my office hours Wednesday 1-2pm.

General Instructions: Most homeworks will consist of a set of problems from the textbook, plus additional problems or data analyses. Turn in a physical copy of your homework at the beginning of class (or earlier) on the due date. For problems that require the use of R, include relevant and well-labeled R code and output with the problem. Additional R code and output may be included in an appendix.

Open Intro Exercises

• 4.24

• 4.46. For part (a), write the hypotheses in both symbols and words, and clearly define the parameter of interest in context of the problem.

• 4.48

• 6.4 (b)–(d)

• 6.6

• 6.32. Additionally,

  (c) Calculate a 90% confidence interval for the difference in the proportion of Republicans and Democrats who think the full-body scans should be applied in airports. Interpret your interval in context of the problem.

  (d) Write in words what a Type 1 error means in this context; write in words what a Type 2 error means in this context.

Introductory Statistics with Randomization and Simulation Exercises

• 2.38

• 2.40