

22S:30/105, Statistical Methods and Computing  
Instructor: Cowles Spring 2013, Homework 9b

Due: Mon. Apr. 28 in class

1. Textbook problem 20.32. Check whether the rules of thumb for using the normal theory approximation are met. Then compute the requested confidence interval 3 ways:

- (a) By hand using the normal approximation.
- (b) By hand using the plus four method.
- (c) With SAS to get the exact confidence interval.

Is there very much difference in this case? Why do you think it turned out that way? Also answer part (b) of the question.

2. Textbook problems 20.39 and 20.41. In addition to doing all parts of the problems by hand, use SAS to carry out the hypothesis test. Compare results.
3. Textbook problem 20.44.
4. Textbook problems 21.14 and 21.15. Do by hand.
5. Textbook problems 21.18 and 21.20. Answer all parts of both questions.
6. Textbook problem 23.28. Do part (a) by hand. Use SAS to get the numeric results for part (b). Answer part (c).
7. Textbook problem 23.30. Use SAS to get the numbers. Answer all parts of the question.