

**GG5204: STATISTICAL INFERENCE**  
**Autumn 2020**  
**Homework 3**

Due date is December 14, 11pm. Read Sections 10.1-10.4 and 11.1-11.3 of DeGroot and Schervish. You may find solutions to some problems in various sources, including solution manual for the textbook. I encourage you to solve the problems yourself rather than obtain solutions, homework is your most valuable tool in studying and preparing for the exams. As I mentioned previously, you may work in groups but do write up on your own and mention the people you collaborated with no points will be taken off for collaboration as long as there is no evidence of copying.

1. DeGroot and Schervish, #13 on page 622.
2. DeGroot and Schervish, #23a) on page 623.
3. DeGroot and Schervish, #2 on page 686.
4. DeGroot and Schervish, #5 on page 686.
5. DeGroot and Schervish, #6 on page 686.
6. DeGroot and Schervish, #9 on page 686.
7. DeGroot and Schervish, #13 on page 687.
8. DeGroot and Schervish, #3 on page 697.
9. DeGroot and Schervish, #7a) on page 697.
10. DeGroot and Schervish, #7 on page 706.
11. DeGroot and Schervish, #8 on page 706.
12. DeGroot and Schervish, #10 on page 706.
13. DeGroot and Schervish, #18 on page 706. significance level  $\alpha = .025$ , find  $c$ .