

M362K (56310), Homework #7

Due: 12:30pm, Thursday, Mar. 10

Instructions: Please show all your work, not only your final answer, in order to receive credit. Please keep answers organized in the same order the problems have been assigned.

Standard deviation and normal approximation (CLT) (3.3)

1. Pitman, p. 202, #2
2. Pitman, p. 202, #3
3. Pitman, p. 202, #4
4. Pitman, p. 202, #8
5. Pitman, p. 202, #9 *[Note: To start the problem, let X_1 be the number of people who switch from Republican to Democrat, and let X_2 be the number that switch from Democrat to Republican. The number of Republican votes is then $r - X_1 + X_2$.]*
6. Pitman, p. 203, #14
7. Pitman, p. 204, #16 *[Note: To clarify, for part (a) the net gain in one game is simply the number on the ticket you draw. For part (b) use the normal approximation.]*
8. Pitman, p. 204, #20
9. Pitman, p. 204, #23
10. Pitman, p. 205, #24(a,b)
11. Pitman, p. 250, #6

Puzzle of the week (optional!)

Diagonal random walk. Pitman, p. 255, #30.