Homework 05

Sections 3.4

STAT 5700 - Probability

Instructions

- Homework problems come from the 7th edition of the text *Mathematical Statistics with Applications* by Wackerly, Mendenhall, and Scheaffer, as well as (potential) additional problems provided by the instructor.
- You are responsible for understanding the concepts covered in all problems listed in a homework assignment, but only even-numbered problems should be turned in.
- Be NEAT and show work to support your answers. Points will be deducted if your answer is not adequately supported or the work cannot be readily followed.
- You are encouraged to work together on homework assignments, but each person must write up and turn in their own work and solutions.
- You will turn in this assignment by scanning your work and uploading a single pdf to Blackboard.

Feel free to use R for calculations involving the binomial distribution, but you should still show your work by writing out the formulas (e.g., $p(x)$) used to produce the probabilities. You may also use the fact that for a Binomial random variable, $E(Y) = np$ and $V(p) = np(1-p)$. We will prove this later on.

Problems to do (responsible for content, but not collected/graded)

- Section 3.4: 37, 39, 51, 55, 59

Problems to submit

- Section 3.4: 38, 40, 44, 48, 50, 56, 58