

STA - 2023
Review for Exam II

The Exam is on Friday, October 16. It will cover Chapter 3.5, 3.6 and 4.1-4.7. As with the first exam, you will be allowed to bring one 8.5 x 11 sheet of paper with anything **written** on both sides. The exam will be divided into two parts : a short answer part and a problems part.

For the Problems Part: This part will have 2-3 problems similar to your homework problems, examples in class and problems on the quiz. Each problem will have 2-3 parts.

For the Short Answer Part: This part will be made up of fill in the blanks, true/false, multiple choice -type problems. You will be tested on definitions and the basic understanding of concepts for this part. Know all possible definitions for this part. Also, be prepared to do short calculations in this part. Concentrate on:

- 1) The definition of a random variable.
- 2) Difference between a continuous random variable and a discrete random variable - be able to give examples of the two.
- 3) Meaning of the expected value of a random variable.
- 4) The definition of a binomial random variable. You should know all the conditions that have to be satisfied by the binomial experiment. Also know the mean and the variance of a binomial random variable.
- 5) Have an idea of the definition of a Poisson random variable - know the mean and variance of a Poisson random variable.
- 6) Know all definitions relevant to probability - sample spaces, events, rules of probability as it applies to the material covered in class.
- 7) Empirical Rule and the Normal Random Variable
- 8) Relationship between the standard normal variable and the general normal random variable.