Math 431 – Spring 2019

Homework 10

Due date: April 25 at 9:30am

Instructions

Complete the problems below. They can be handwritten or typed. Be certain to submit your solutions according to the guidelines of your instructor.

Please keep the following in mind as you write your solutions.

- Credit comes from your reasoning, not your numerical answer.
- Observe rules of academic integrity. You are encouraged to discuss the problems with fellow students, but copied work is not acceptable and will result in zero credit.
- You may find solutions to some exercises on the web. However, the point of the homework is to give you the problem solving practice you need in the exams. Hence it is not smart to take shortcuts to secure the few points that come from homework.

Problems

Hand in the following problems.

- Suppose that X and Y are independent and distributed as Unif$[0, 1]$. Find the distribution of $X + Y$. (This is Example 7.13. You solution can of course be the same as the solution in the book, but please make sure you understand each step.)
- **Chapter 7:** 2, 4, 5 (You can directly use Fact 7.9, without recalculating the convolutions.)
- **Chapter 8:** 2, 20