Math 3593H

Honors Mathematics II Spring Semester 2018

Assignment 7 - Due Thursday 3/8/2018

Read: Hubbard and Hubbard Sections 4.3, 4.5 and 4.8.

Exercises:

Section 4.3: 1, 2, 5*. Section 4.5: 6, 7, 8, 11*, 12, 13, 14*, 15, 16, 18*, 19 Section 4.8: 1, 2*, 3, 4*, 5, 6, 7, 8, 9*, 10, 11, 13, 15.

Comments:

We are skipping Sections 4.4, 4.6 and 4.7.

There are many technicalities. In Section 4.3, Theorem 4.3.6 and 4.3.9 are things you should know but do not spend too much time with the technical details of the proof of 4.3.9. Theorem 4.3.6 uses uniform continuity in the proof, and it is an important concept, but I will not test you on it. In fact, most of the proofs have details that you could skip over. In doing question 4.3.5 you are supposed to apply the theorems from section 4.3

In Section 4.5 the heavy duty result is Fubini's theorem, but they relegate the proof to an appendix. For your purposes the more important thing is to be able to do calculations where you change the order of integrations, and I think you probably have already an idea of how to do this. In fact, I think you could probably do the exercises to Section 4.5 right now.