MATH 528B
HOMEWORK 4

SPRING 2020

The following assignment is to be turned in on
Monday, March 23rd, 2020.

Reading:

- Section 5.1: (pages 88-95)
- Section 5.2: (pages 96-104)
- Section 5.3: (pages 107-113)

Homework (turn in any 5 from Section 5.1 and any 4 from Section 5.2):

- Section 5.1: Write up the details of the proof of the Proposition which begins on page 88. (Since this is long, I will count this as 2.)
- Section 5.1: Write up the details in Example 2 on page 91. In particular, calculate T^*, show that T is closed, verify the equivalence in (5.4), and show that C_0^∞ is a core. (Again, since this is long, I will count this as 2 also.)
- Section 5.1: (pages 95-96) Exercises: 5.3, 5.4, 5.9, 5.11, 5.13.
- Section 5.2: Write up the remaining details of the proof of Theorem 5.17 c) and d). In part c), you need not reprove that $\sigma(T) \neq \emptyset$; we did this in class.
- Section 5.2: Write up the details of Examples 1 and 2 starting on page 103.
- Section 5.2: (pages 104-106) Exercises: 5.14, 5.15, 5.16, 5.18, 5.23, 5.26, 5.27.