

Homework Assignment for Week 10

1. Section 5.1: skip reading, just do problem 22.
2. Section 5.2: problem 41.
3. Section 5.3: problems 5, 49, 71, 73 (read Table 5.4 for the Max-Min Inequality).

Problem 87 is optional. Do it if time permits. It gives you a feeling (although does not completely answer) why continuous functions are integrable. The assumption on f here is weaker than the version that we used in the class ($|f(x) - f(y)| \leq C|x - y|$), but stronger than continuity. The procedure of the proof is similar to what we showed in class.

4. Section 5.4: odd problems in 1-33. Problems 35, 77, 81, 84, 89.