October 26, 2016

HOMEWORK AND EXAM QUESTIONS FOR MA 109A

Unless otherwise stated all questions are from Munkreas.

Week 1: Questions: 3, 8 (page 83); 4 (page 92); 13 (page 101).

Week 2: Questions: 19 (page 102); 13 (page 112); 3, 4 (page 126-127).

Week 3: Questions: 11 (page 129); 8 (page 134); 9 (page 152); 8 (page 158)

Week 4 (Midterm): Questions: 5 (page 145); 11 (page 158); 7, 10, 11 (page 171)

Week 5: Questions: 7 (page 181) [this question carries twice as many points as a regular question]; 8 (page 186), and:

1. Let $S \subset \mathbb{R}$ be a countable and everywhere dense subset (recall that everywhere dense means that $\overline{S} = \mathbb{R}$). Show that $S$ is not locally compact.