
MM 508 Topologi I

Ugeseddel 5

The home page of this course can be found on Blackboard or directly on <http://www.imada.sdu.dk/~njn/MM508>

In the lectures in week 49 we have proved the important result that for metric spaces the notions of sequentially compactness and compactness are equivalent. Further we have proved the Heine–Borel Theorem 6.26 which characterizes compact subsets of \mathbb{R}^n and have investigated continuous functions on compact spaces. In particular we have proved the important Theorem 6.26 about uniform continuity. This corresponds to the pages 43–51 in the lecture notes.

In the lectures in week 50 we shall study connected topological spaces and continuous functions on them.

Exercises for week 50

- Remaining exercises from week 49.
- Exam Problems:
 - Jan 12: 4
 - Jun 12: 1 (1.–4.), 3, 4.
 - Jan 09: Problem 3, Problem 4.
 - June 09: Problem 3, Problem 4.
 - Jan 04: Problem 5.
- Opgaveheftet: 20, 22, 37, 38.

Test of digital exams To test how to turn in written mathematics digitally, I shall ask you to write down page 51 of the notes (there are several formulas on that page) and turn it in with your name using SDU-assignment. I want you to turn it in as a pdf-file. I suggest that you can turn it in any time on **Tuesday, December 11.** in the period **10 – 19.** To test the system in detail and to determine how long the time buffer to the real exam should be, I will ask one of you to upload at the last moment. Let us talk about that on Monday where we have lectures from 10 –12.

Contrary to the real exam, you may upload from home or using any other network. It is of course free to participate and all will pass!

Greetings Niels Jørgen