MA651 Topology. Homework 9

Homework due April 11, 2006

1. Find the mistakes in the lecture notes (I have intentionally made several mistakes, and you might find even more).

2. Generalize Theorem (52.2) for non-Hausdorff spaces.

3. Explain why we need T_2 in Theorem (52.3)

4. Prove Proposition (52.1)

5. Prove that every subspace of completely regular space is also completely regular (see Theorem 52.6).

6. Prove Theorem (56.1).