MAT 530 Topology, Geometry I

Problem Set 9
due Friday, November 13

All of the homework is from Munkres this time.

Reading Assignement: please read Theorems 53.2, 53.3 and Example 4 in §53 of Munkres.

Please do questions 1, 3, 6a(Hausdorff, regular only),b §53; questions 5, 8 §54; question 6 §52, and questions 2abejkl, 5 §58.

For question 2 §58, use the theorem that we announced on Friday and will prove on Monday: spaces of the same homotopy type have isomorphic fundamental groups. In this question, please give precise descriptions of all homotopy equivalences, deformation retractions and homotopies that you are using; your desriptions can be informal though, you do not have to write formulas for the maps.