

Topology I HW 4 Due: Sep. 28

1. Do problems 2-9 on p37.
2. Do problems 3-2, 3.3, 3-5 on p62.
3. Prove Lemma 3.8.
4. Suppose A is a subspace of the topological space X .
 - (a) Prove that the closed subsets of A are precisely the intersections of A with closed subsets of X .
 - (b) Prove that any subspace of a second countable space is second countable.