

**Topology II, Newberger, Fall 2005**

**Written Homework: Section 22.** Due Thursday, September 8.

- (1) (10 points) Page 145 #3.
- (2) (10 points) Let  $p : X \rightarrow U$  and  $q : Y \rightarrow Z$  be quotient maps. Prove that  $q \circ p : X \rightarrow Z$  is a quotient map.
- (3) (10 points) Page 145 #6(a).
- (4) (10 points) Page 145 #6(b).