

**R. Kaufmann**  
**Math 572, Spring 2017**

HOMEWORK 5. PROBLEMS.

PROBLEM 1: Show explicitly, that the ordered simplices of a simplicial complex are a simplicial set.

PROBLEM 2: Show explicitly that the  $p$ -simplex  $\Delta_p$  is homeomorphic to geometric realization of the simplicial set  $\Delta[p]$  given in [GM] I.2.5.

PROBLEM 3: Give the explicit simplicial structure on the singular chains as defined in [L] B.7.

PROBLEM 4: Show that the relation in [L] B.7 is indeed an equivalence relation.