

## TOPOLOGICAL MANIFOLDS || PROBLEM SHEET 9

**Problem 1.** Prove the “topological weak Palais theorem”. That is, let  $n \geq 6$ , let  $M$  be a connected  $n$ -manifold, and let  $\phi, \psi: D^n \rightarrow \text{Int } M$  be locally collared embeddings. Then there exists a homeomorphism  $h: M \rightarrow M$  with  $h \circ \phi = \psi: D^n \rightarrow M$ .

**Problem 2.** Up to PL-homeomorphism, how many closed PL manifolds homotopy equivalent to  $T^6$  are there?