TOPOLOGICAL MANIFOLDS \parallel PROBLEM SHEET 1

- **Problem 1.** An example of a locally n-Euclidean, paracompact space that is not Hausdorff.
- **Problem 2.** An example of a locally n-Euclidean, Hausdorff space that is not paracompact.
- **Problem 3.** Every compact topological manifold embeds in \mathbb{R}^N for some N.