

Presentation problems for 4/15/13

Problem 1: Prove that the function f which we constructed in our proof of Urysohn's Lemma is continuous. This is Step 4 in the book's proof.

Problem 2: Let (\mathbb{R}^n, d) be usual n -dimensional euclidean space, and let $\mathcal{H}(\mathbb{R}^n)$ be the space of all compact sets in \mathbb{R}^n . Define the Hausdorff metric on $\mathcal{H}(\mathbb{R}^n)$. This will take a bit of research on someone's part, but isn't too complicated.

Problem 3: Exercise 1 from Professor Lee's notes on simply connected spaces.