

Exercises

9.138 [OXC] Prerequisites: [OXO], [O9T]. Let I be a set of cardinality 2, then the space (X, d) is homeomorphic to the Cantor set (with the usual Euclidean metric $|x - y|$).

Solution 1. [OXD]

Combining this result with [OX8] we get that the Cantor set (with its usual topology) can be endowed with an abelian group structure, where the sum and inverse are continuous functions; This makes it a topological group.