

Exercises

E8.43 [OJ6] Topics: compact sets. Prerequisites: [OJ5]. Note: For the real case, see [OBF]. For the case of metric spaces, see [OVP].

Let (X, τ) be a T_2 topological space and let $A_n \subseteq X$ be compact nonempty subsets such that $A_{n+1} \subseteq A_n$: then $\bigcap_{n \in \mathbb{N}} A_n \neq \emptyset$.

What happens if the space is not T_2 ?

Solution 1. [OJ7]