## Exercises

E11.9 [OYV] In the exercise [OYS] it is important to require that the balls are centered in points of $K$. Find an example of metric space $(X, d)$ and compact $K \subseteq X$ of finite dimension, but such that, for every $n \in \mathbb{N}$ and every $\rho > 0$, there are infinite disjoint balls each containing only one point of $K$.

**Solution 1.** *[OYW]*