Exercises

E9.79 [OT7] Let $A \subset \mathbb{R}^n$ be a bounded set. For every $\varepsilon > 0$ there is a set $I \subset A$ that satisfies:

- I is a finite set,
- $\forall x, y \in I$, $x \neq y$ you have $x \notin B(y, \varepsilon)$ (i.e. $d(x, y) \geq \varepsilon$),
-

$$A \subseteq \bigcup_{x \in I} B(x, \varepsilon) \ .$$

Solution 1. [OT8]