

## Exercises

E8.e.21 [OK0] Let now  $(X, d)$  be a metric space where open balls  $B(x, r)$  are also closed. Show that the connected components of  $X$  are all and only singletons  $\{x\}$ .

(A space where connected sets are always singletons, is called *totally disconnected*).

**Solution 1.** [OK1]