Exercises

E9.66 [ORR] Difficulty:*. Let (X, d) be a metric space. Show that $E \subseteq X$ is disconnected if and only if *"there are two disjoint open sets, each of which intersect E and such that E is covered by their union"* (see the proposition formalized in eqn. [(8.49)] in the exercise [0JK]).

Solution 1. *[ORS]*