Exercises

E10.a.17 [ONH] Given (X, d) a metric space, show that d is continuous (as a function $d : X \times X \to \mathbb{R}$). You can actually show that it is Lipschitz, by associating to $X \times X$ the distance

$$\hat{d}(x, y) = d(x_1, y_1) + d(x_2, y_2), \text{ for } x = (x_1, x_2), y = (y_1, y_2) \in X \times X.$$

Solution 1. [ONK]

[[ONJ]]