9.1 Definitions [2CC]

A metric space is a pair (X, d) where X is a set (nonempty) with associated distance d.

Definition 9.1. *[OMS]*

An example is $\mathbb{R}^n$ with the Euclidean distance $d(x, y) = |x - y|$.

Definition 9.2. *[OMT]*

Example 9.3. *[2C1]*

[Note. If you are not familiar with the concept of metric space, you can assume that $X = \mathbb{R}^n$ and $d(x, y) = |x-y|$ in all exercises.]

Exercises

E9.4 *[OMV]*

E9.5 *[OMW]*

E9.6 *[OMX]*

E9.7 *[OMZ]*

E9.8 *[ON1]*

E9.9 *[ON3]*

E9.10 *[ON5]*

E9.11 *[ON6]*

E9.12 *[ON8]*

E9.13 *[ONC]*

E9.14 *[ONF]*

E9.15 *[ONG]*

E9.16 *[ONH]*

E9.17 *[ONM]*

E9.18 *[ONQ]*

QuasiEsercizio 32. *[ONS]*

QuasiEsercizio 33. *[ONT]*

QuasiEsercizio 34. *[ONV]*