



### Why

We want to talk about functions from one set with a metric into another set with a metric.

### Definition

A *function* from a first metric space to a second metric space is a function from the first set to the second set.

### Notation

Suppose  $(A, d)$  and  $(B, d')$  be metric spaces. We denote that  $f$  is a function from the first metric space to the second metric space by  $f : (A, d) \rightarrow (B, d')$ .



