



## Injective Functions

### 1 Why

An element of the codomain may be the result of several elements of the domain. This overlapping, using an element of the codomain more than once, is a regular occurrence.

### 2 Definition

If a function is a unique correspondence in that every domain element has a different result, we call it *one-to-one*. This language is meant to suggest that each element of the domain corresponds to one and exactly one element of the codomain, and vice versa.

We also call such functions *injective*.