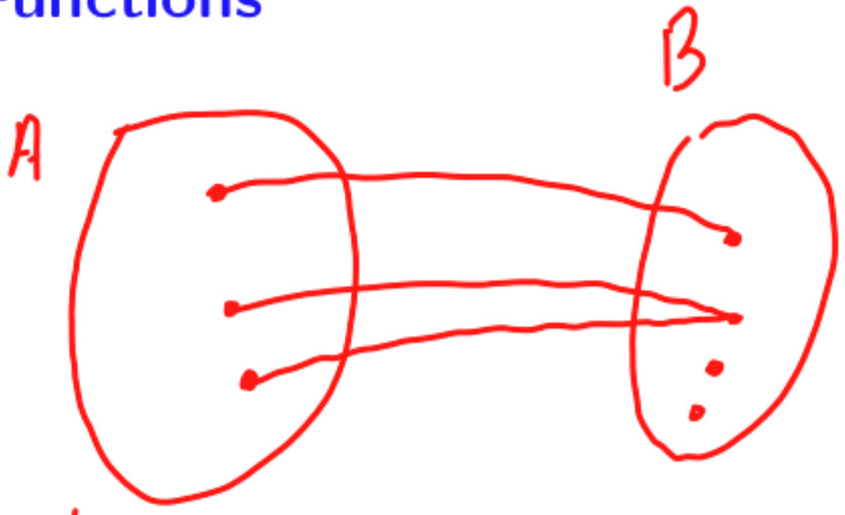
Functions



domain

$f : A \to B$

set of pairs (x, y):

$x \in A$, $y \in B$

each $x \in A$ appears in exactly one pair

$A = \{-1, 0, 1, 2\}$ $B = \mathbb{R}$ f: "square"

$(-1, 1)$	
$(0, 0)$	
$(1, 1)$	
$(2, 4)$	

$\{(x, x^2) \in \mathbb{R}^2 \mid x \in \mathbb{R}\}$

Notation and terminology

	Informal
the function $f : \Re \to \Re$ defined by $f(x) = x^2$	the function x^2
the function $f : \Re \to \Re$ defined by $f(z) = z^2$	the function z^2
the function f	the function $f(x)$