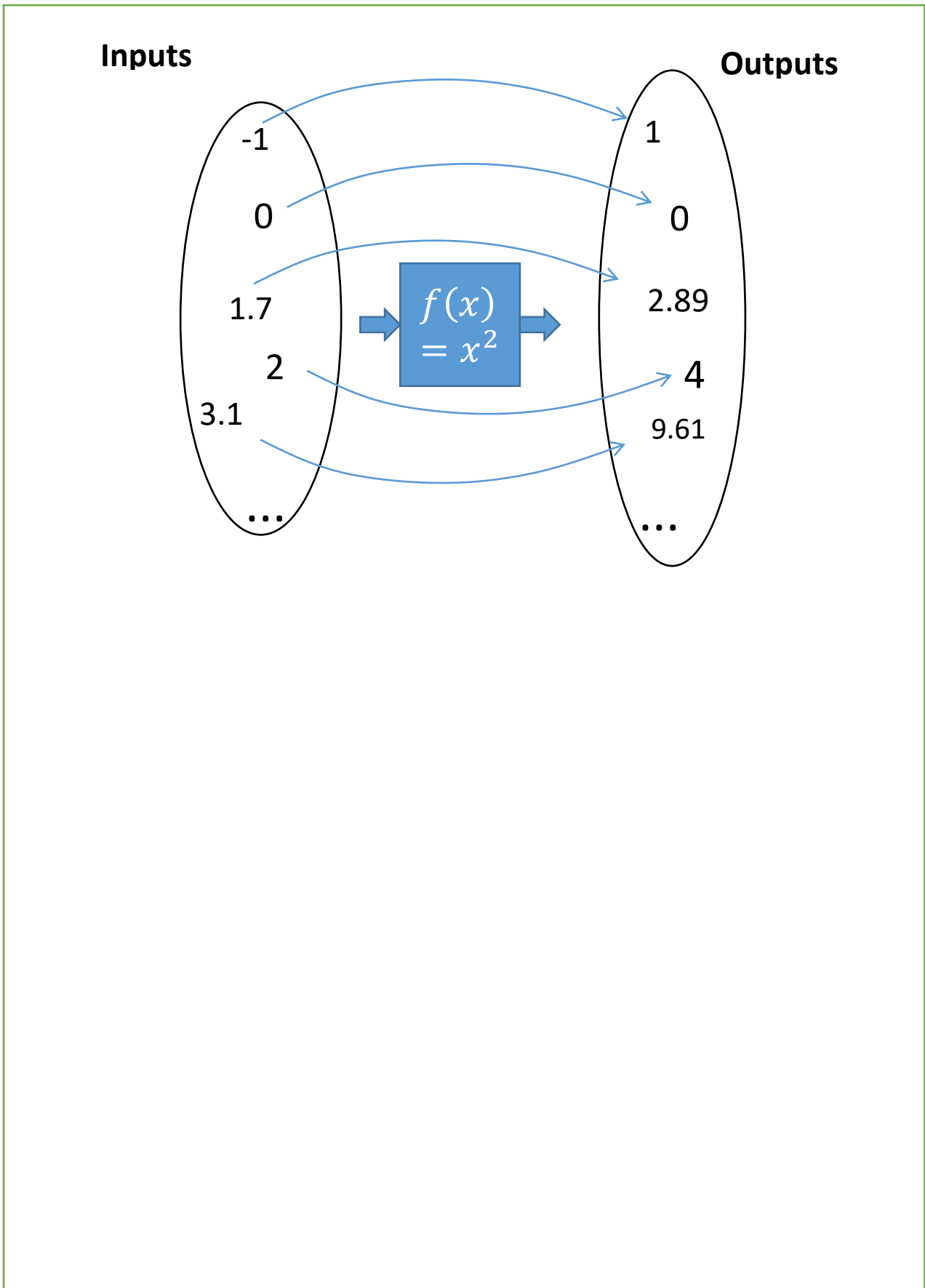


Functions:



Examples:

1. If $f(x) = x^2 - 3x$ and $g(x) = x + 5$, $x \in \mathbb{R}$

a) Find $f(-4)$

b) Find the values of x for which $f(x) = g(x)$

c) Find the roots of $f(x)$.

d) Find the roots of $g(x)$.

2. Determine the minimum value of the function $f(x) = x^2 - 6x + 2$, and state the value of x for which this minimum occurs.

Test Your Understanding:

$f(x)$	Completed square	Min/max value of $f(x)$	x for which this min/max occurs
$x^2 + 4x + 9$			
$x^2 - 10x + 21$			
$10 - x^2$			
$8 - x^2 + 6x$			

1. Find the minimum value of $f(x) = 2x^2 + 12x - 5$ and state the value of x for which this occurs.

2. Find the roots of the function $f(x) = 2x^2 + 3x + 1$