



functions



*f*









# functions

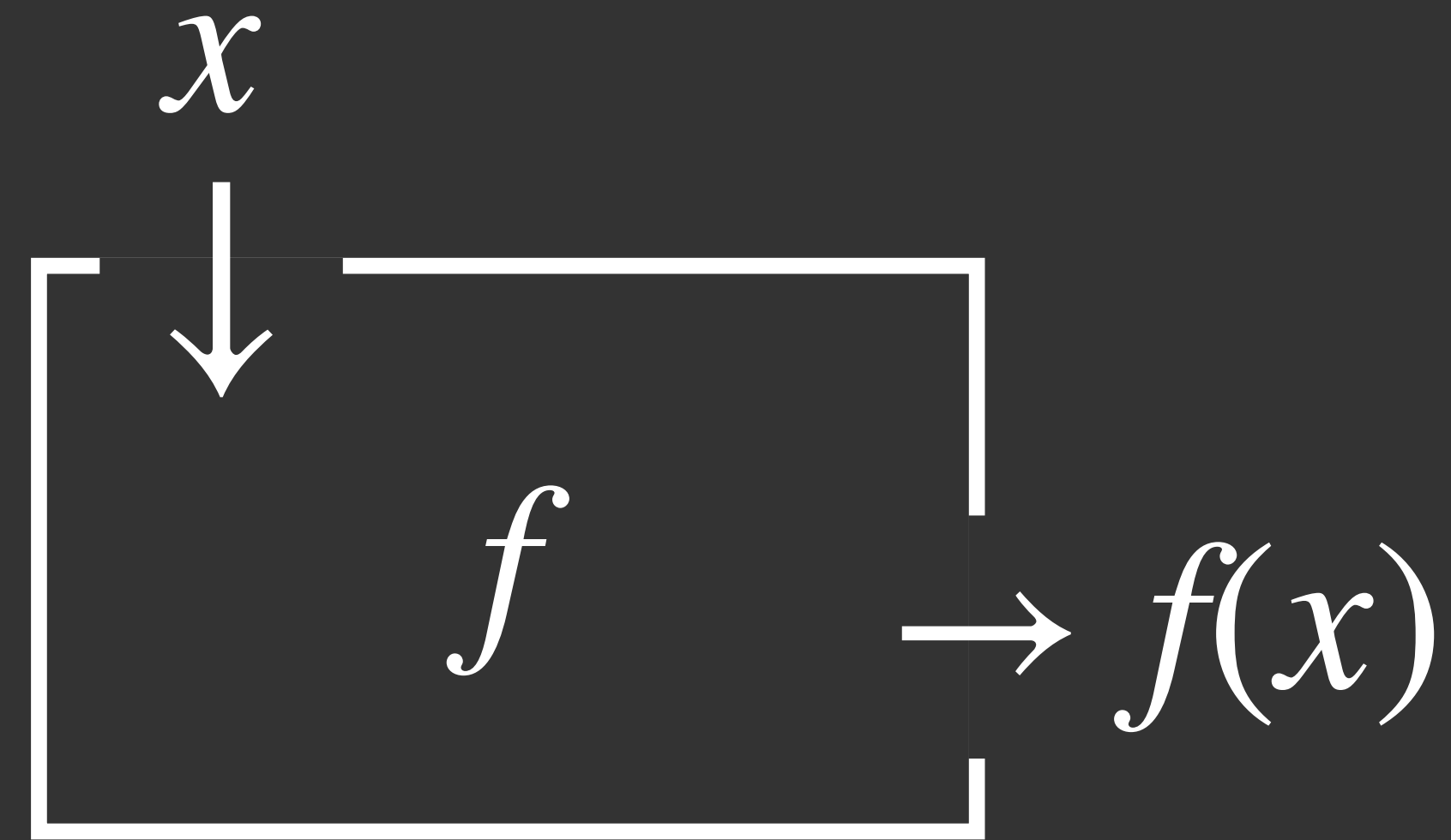
## input-output

we define the function  $f$  as  $f(x) : A \rightarrow B$  which often is read as as " $f$  maps  $A$  into  $B$ "

we assign this value to a variable  $y$  as in  $y = f(x)$

what is the rule we follow to obtain  $f(x)$ ?

- computational
- table
- algorithm
- verbal or text
- $\vdots$



Note: a function must be single valued and can't give back 2 or more results for the same input

So " $f(16) = 4$  or  $-4$ " is not right!



domain, range and codomain