

Section 1.2: Functions and Graphs

Wednesday, January 14, 2015
1:57 PM

relation \equiv a set of ordered pairs
(in general, a set of n -tuples)

examples:

function?

x	y
-2	4
-1	1
0	0
1	1
2	4

x	y
4	-2
1	-1
0	0
1	1
4	2

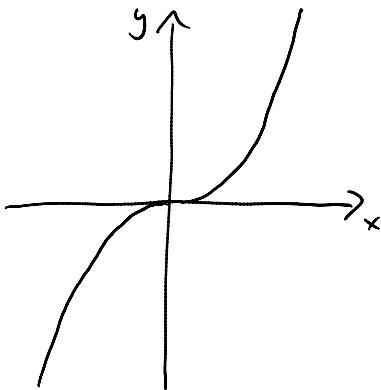
Instructor	Course
Pet	173
Pet	163
Gilles	163
Gilles	254

function \equiv a relation in which, for every value of the first coordinate, there is only one value for the second coordinate

"for every x , there is only one y "

graphs of functions:

how can you tell if the curve on a graph represents a function?



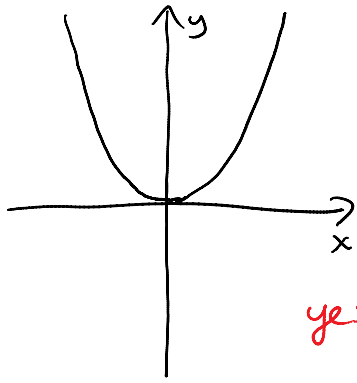
vertical line test:

scan the graph from left to right with a vertical line

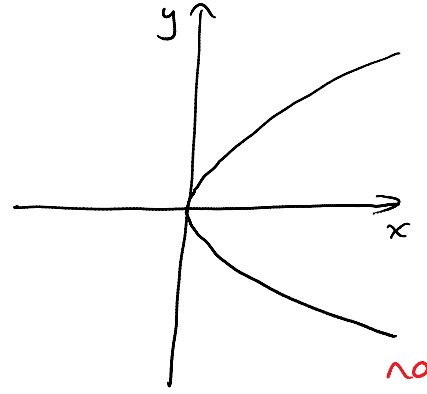
\rightarrow if the line cuts the graph in more than one place, the graph is not a function

examples: are the following graphs functions?

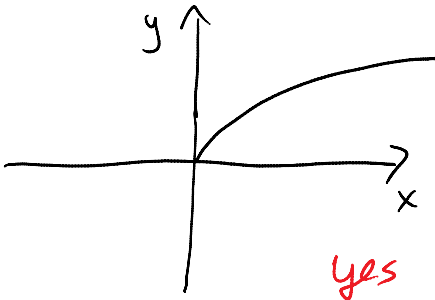
examples: are the following graphs functions?



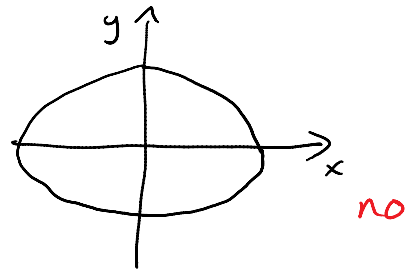
yes



no



yes



no