

Function: When each input goes to exactly one output.

Ordered Pairs

Function
 $\{(0,5), (1,2), (2,2), (4,1)\}$

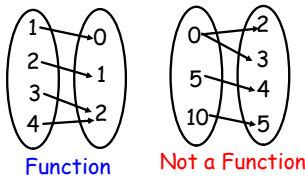
Not a Function
 $\{(1,0), (2,1), (3,2), (2,2)\}$

Table

x	y	x	y
0	0	2	0
1	2	2	1
4	8	4	2
6	12	7	3

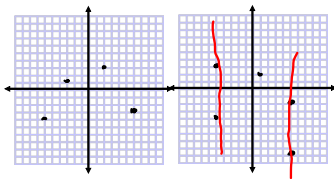
Function Not a Function

Mapping



Function Not a Function

Graph



Function Not a Function

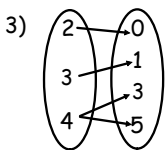
Determine whether the relation is a function?
If it is NOT a function, explain why it is not a function.

- 1) $\{(3,1), (6,2), (9,2), (12,1)\}$ 2) $\{(1,2), (2,3), (2,4), (4,6)\}$

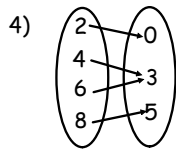
Function

Not a fn
b/c 2 can't
go to both
3 & 4

Determine whether the relation is a function?
If it is NOT a function, explain why it is not a function.



Not a fn
b/c 4 can't
go to 3 & 5



Function

Determine whether the relation is a function?
If it is NOT a function, explain why it is not a function.

5)

x	y
0	3
1	6
4	10
6	22

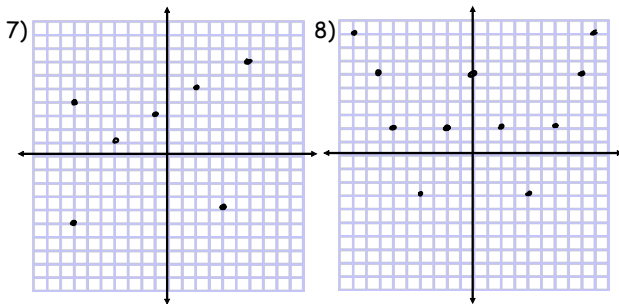
fn

6)

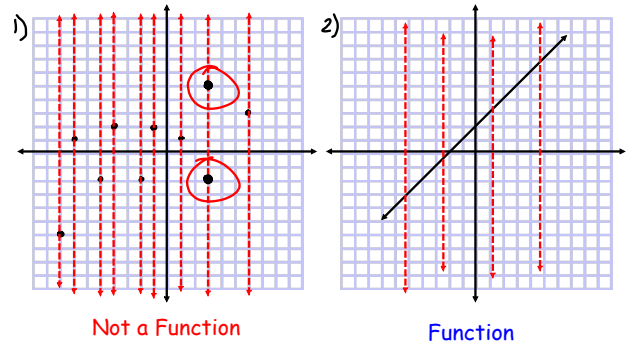
x	y
0	-3
1	-1
4	2
4	4

Not a fn
b/c 4 can't
go to 2 & 4

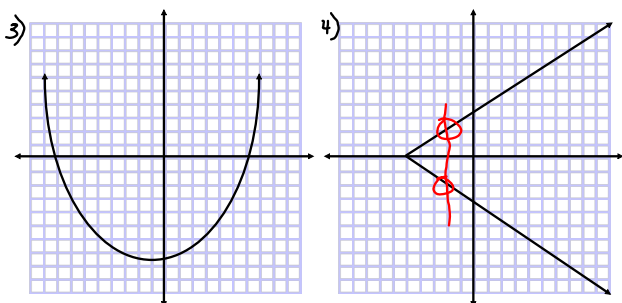
Determine whether the relation is a function?
If it is NOT a function, explain why it is not a function.



Vertical Line Test: Draw several vertical lines through a graph. If any one line touches the graph two or more times, the relation is NOT a function. If each line only touches the graph once, the relation IS a function.



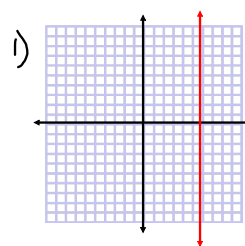
Determine whether the relation is a function?
If it is NOT a function, explain why it is not a function.



F_n

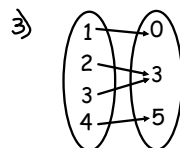
Not a F_n
b/c it fails the
vertical line
test

Try this: Determine whether the relation is a function?
If it is NOT a function, explain why it is not a function.



2)

x	y
0	2
3	6
-1	4
-2	6



4) $\{(0,1), (-4,7), (7,6), (-4,1)\}$

