

ASSIGNMENT 3 Solutions

Thu Nov 1st 2018

1) $\textcircled{A} \{ (0, -2), (0, -1), (1, 0), (1, 5) \}$

What type of object
is this set?
RELATION!

What type of Relation?
Not a function,
just a relation

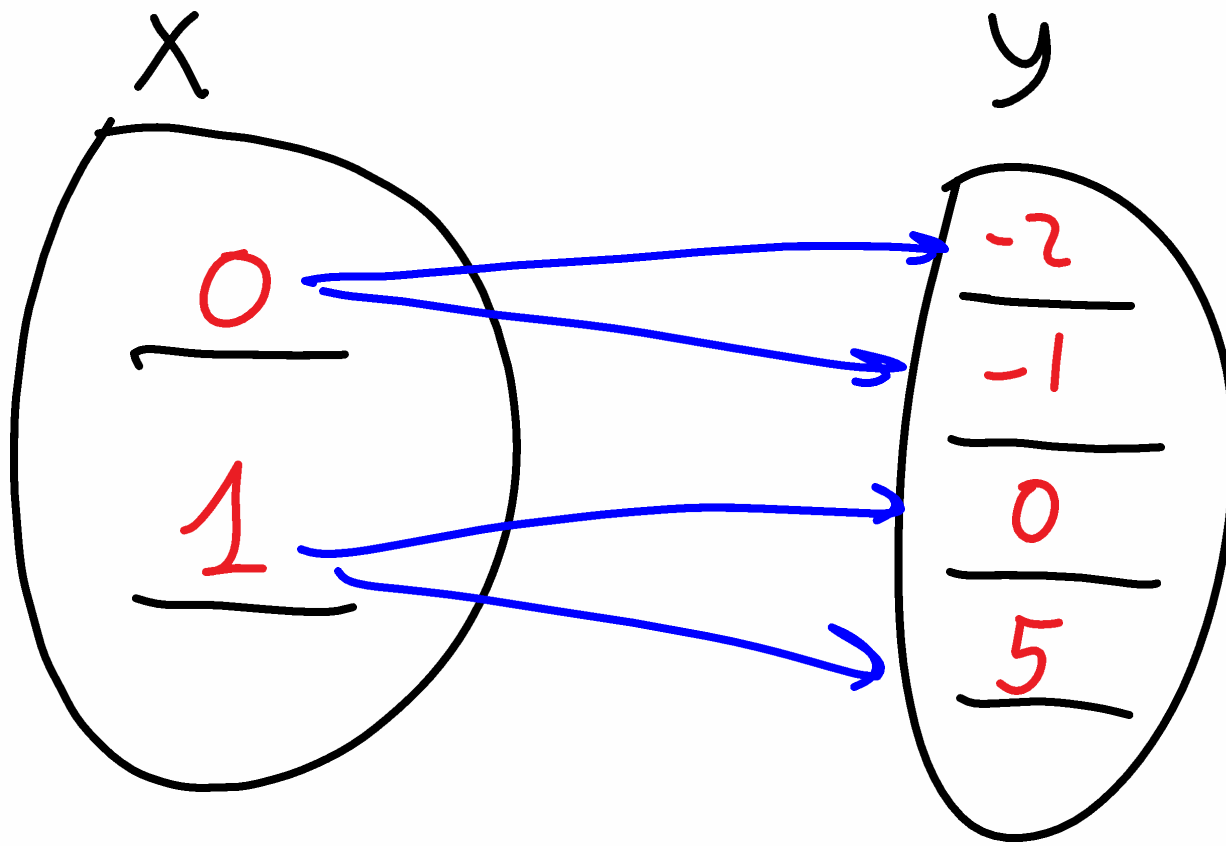
$\{ \dots \} \rightarrow$ Means this is a set

What kind of objects does this contain?

Ordered pairs!

What does an ordered pair represent?

Both Arrows & points



⑤ Draw the corresponding arrows

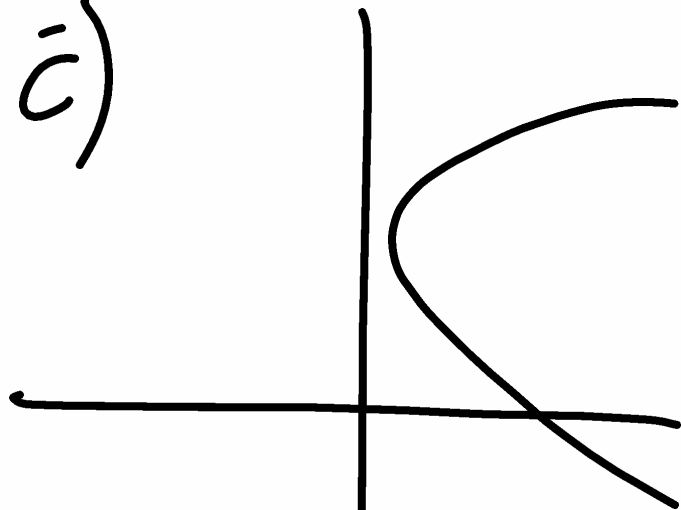
b)

X	Y
-1	-3
0	1
1	5
2	9

yes, because each element of the domain has one unique image

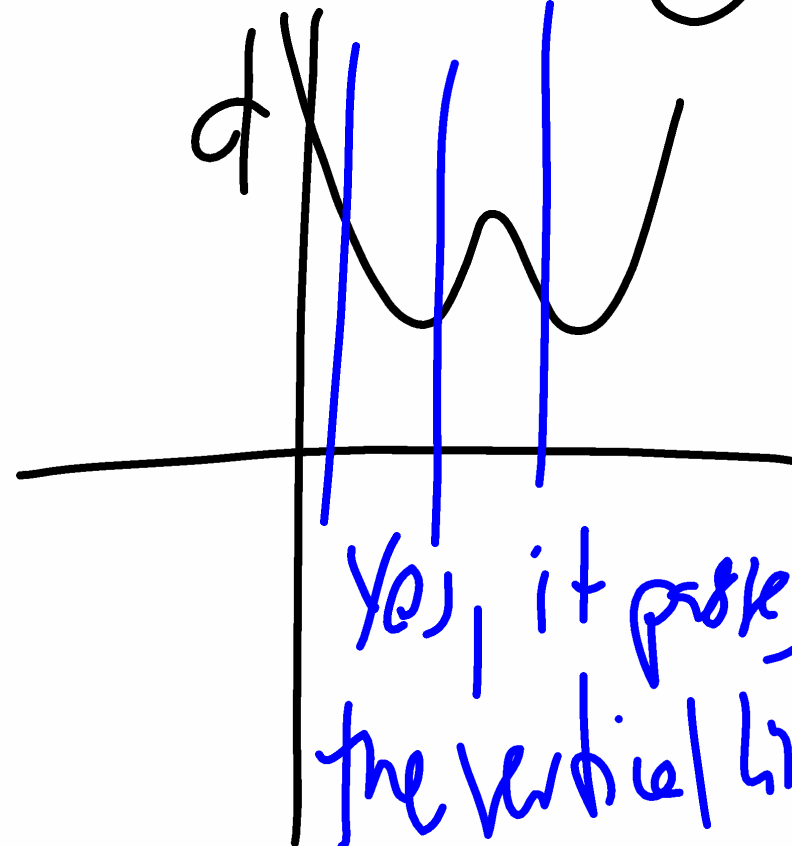
Is this a function?

c)



No, because it doesn't pass the vertical line test

d) 



Yes, it passes the vertical line test

Q

Each x value has/does not have only one y value

This means the points represent a function/relation

D

For the table, write

Domain = $\{-1, 0, 1, 2\}$

is a set of numbers

Range = $\{-3, 1, 5, 9\}$

Ⓔ (for table) Each x value has only one y -value.
This means The points represent a function

Ⓒ 1st Graph: Each x value has more than one
 y value

2nd Graph: Each x value has only one y value

2) a) Domain = $\{1, 3, 4, 6\}$ Function
Range = $\{1, 2, 5\}$

b) Domain = $\{1, 2, 3\}$ Range = $\{4, 5, 6\}$ Relation

c) Domain = $\{1, 2, 3\}$ Range = $\{4\}$ Function

d) Relation because some elements of the domain ~~do~~ not have images at all
Also because some elements have more than one image

⑦ a)