

Chapter 2 - Linear Equations & Functions

2.1 Relations & Functions



Relation - A mapping/pairing of input & outputs.

(domain) (range)
x y

Ways to represent:

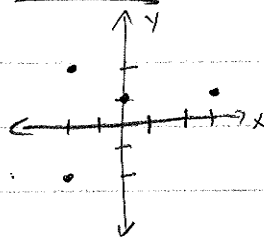
Ordered Pairs

- $(-2, 2)$
- $(-2, -2)$
- $(0, 1)$
- $(3, 1)$

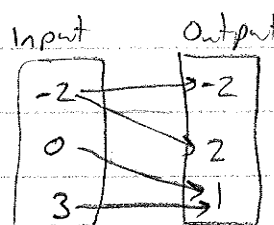
Table

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

Graph



Mapping Diagram



Example

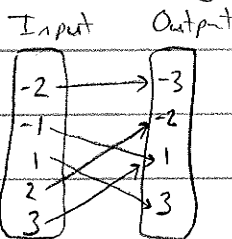
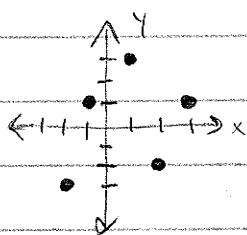
For the relation $(-2, -3), (-1, 1), (1, 3), (2, -2), (3, 1)$

a) Identify the domain & range.

D: $-2, -1, 1, 2, 3$

R: $-3, -2, 1, 3$

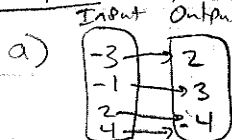
b) Represent it as a graph & a mapping



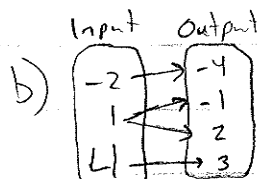
Function - A relation where each input (x) has exactly one output (y)

If an x has more than 1 y, it is not a function

Example - Function?



Each x has 1 y,
FUNCTION!



1 matches to -1, 2, so an x has more than 1 y,
NOT A FUNCTION

Don't
p76?

3-13 odd,

14-20

~~1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20~~