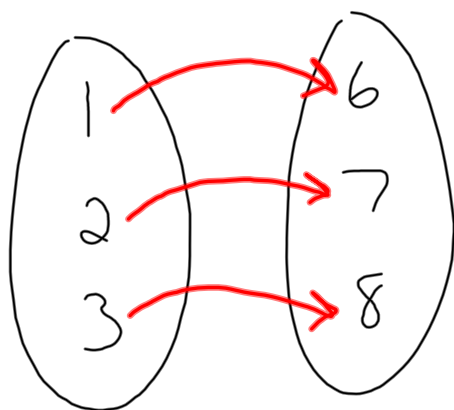


DEC 11/07

FUNCTIONS AND RELATIONS

A RELATION IS ANY SET OF ORDERED PAIRS OF NUMBERS (x, y)

MAPPING DIAGRAM



THE PAIRS ARE

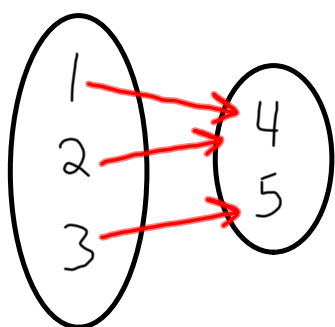
 $(1, 6)$ $(2, 7)$ $(3, 8)$

ROSTER NOTATION

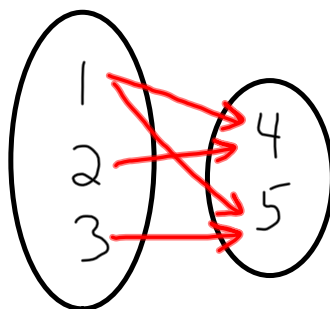
 $\{(1, 6), (2, 7), (3, 8)\}$

A FUNCTION IS A TYPE OF RELATION IN WHICH ANY MEMBER OF THE DOMAIN (x) IS ASSIGNED EXACTLY ONE MEMBER OF THE RANGE (y)

Ex #1 WHICH DIAGRAM IS A FUNCTION



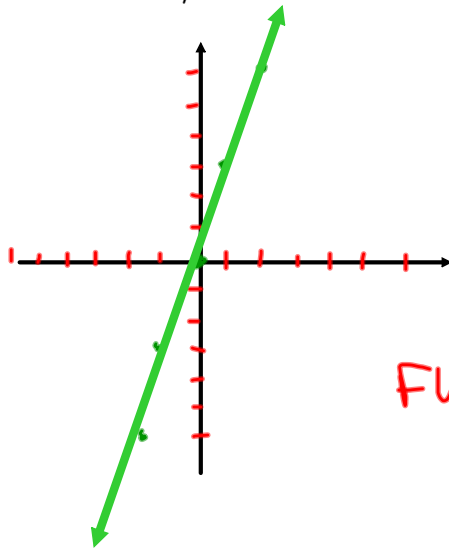
FUNCTION



NOT A FUNCTION

Ex #2 IS $\{(1,2), (3,4), (4,4)\}$ ^{FUNCTION}
 OR $\{(1,2), (1,3), (2,3)\}$ A FUNCTION?
 NOT A FUNCTION

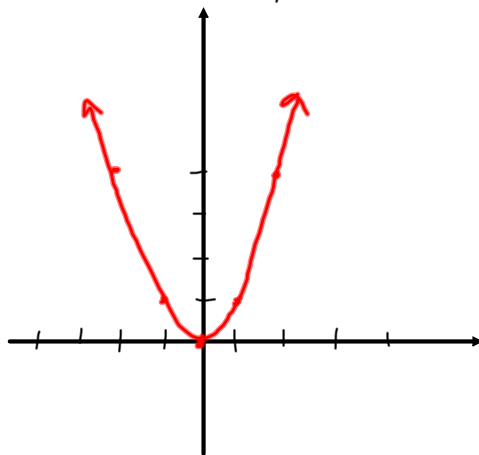
Ex #3 $y = 3x$



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

FUNCTION

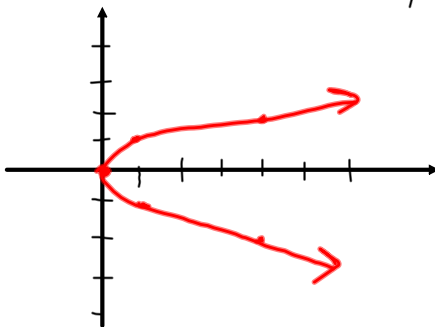
Ex #4 $y = x^2$



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

FUNCTION

Ex #5 $x = y^2$



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

NOT A
FUNCTION