

Name: _____

Date: _____

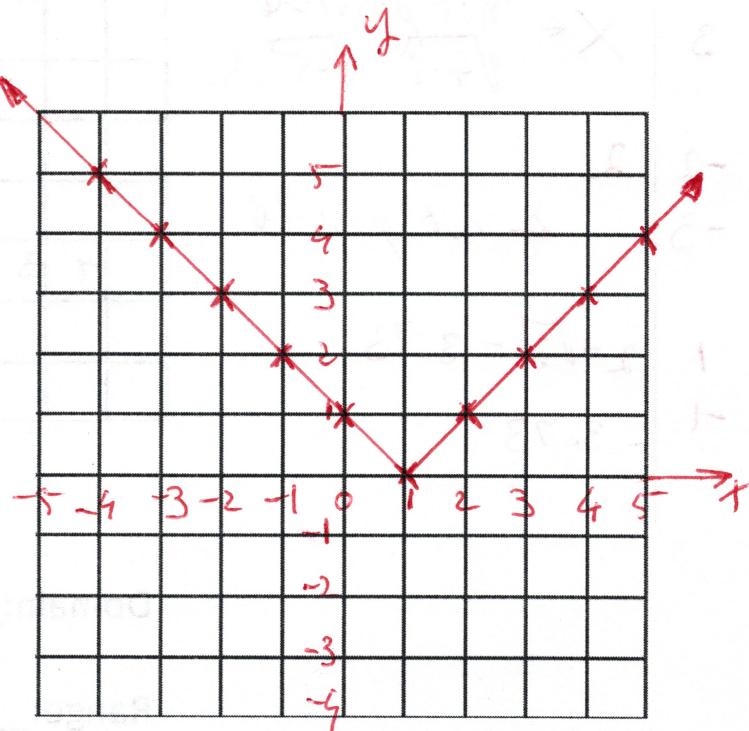
Homework sheet: Alg2H
Relations, Functions, Domain and Range

1. Given the equation

$$y = |x - 1|$$

complete the below table, graph, domain and range, and whether the equation describes a function.

x	y
0	1 ← $ 0 - 1 $
1	0
2	1
3	2
4	3
-1	2 ← $ -1 - 1 = -2 $
-2	3
-3	4

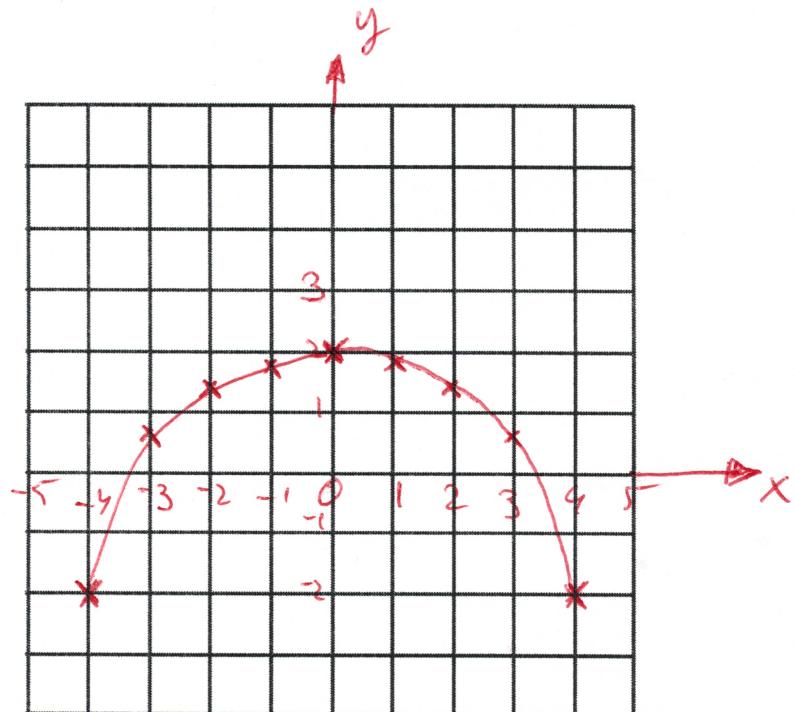
Domain: $x \in (-\infty, +\infty)$ Range: $[0, +\infty)$ Function: Yes

2. Given the equation

$$y = -2 + \sqrt{16 - x^2} ,$$

complete the below table, graph, domain and range, and whether the equation describes a function.

x	y
0	+2
4	-2
-4	-2
2	$-2 + \sqrt{12} = 1.46$
-2	$-2 + \sqrt{12} = 1.46$
3	$-2 + \sqrt{7} = 0.64$
-3	0.64
1	1.87
-1	1.87



Domain: $[-4, 4]$

Range: $[-2, 2]$

Function: Yes.

3. Given the equation

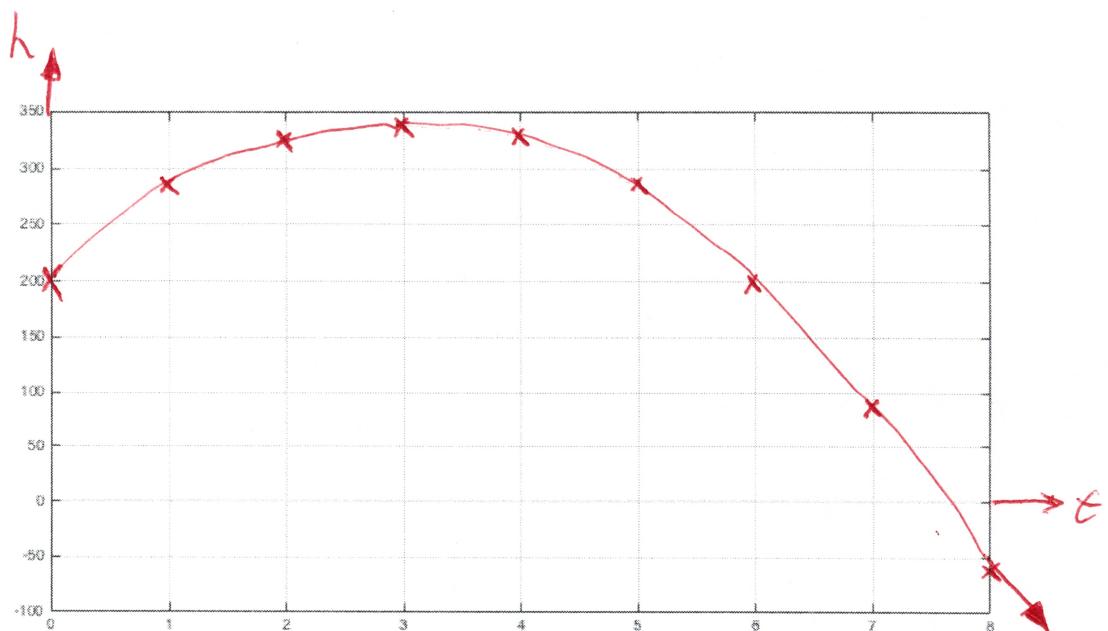
$$h(t) = 200 + 96 \cdot t - 16 \cdot t^2 ,$$

and the Domain

$$t \in [0,8]$$

complete the below table, graph, range, and whether the equation describes a function.

t	H
0	200
1	280
2	328
3	344
4	328
5	280
6	200
7	88
8	-56



Domain: $t \in [0,8]$

Range: $(-\infty, 344]$

Function: Yes

==== End ===