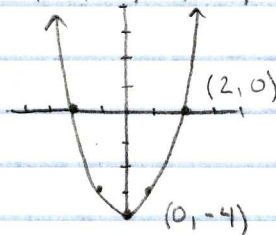


HW #11 2.2 12, 16, 20, 24, 26, 38, 42, 44, 50, 52

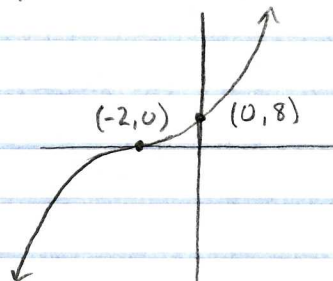
12)  $f(x) = x^2 - 4$

x	±3	±2	±1	0
y	5	0	-3	-4



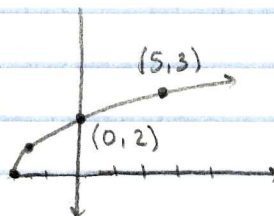
16)  $g(x) = (x+2)^3$

x	-4	-3	-2	-1	0	1
y	-8	-1	0	1	8	27



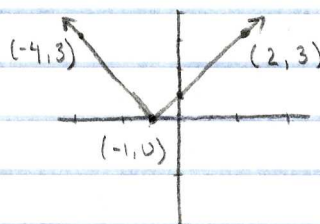
20)  $f(x) = \sqrt{x+4}$

x	-4	-3	0	5	12	21
y	0	1	2	3	4	5



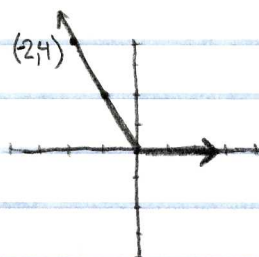
24)  $h(x) = |x+1|$

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

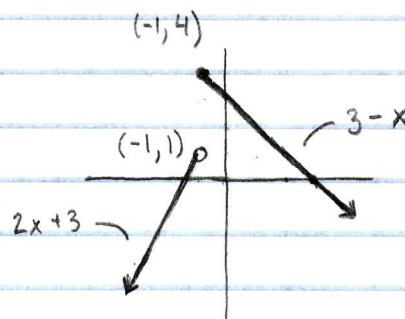


26)  $G(x) = |x| - x$

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

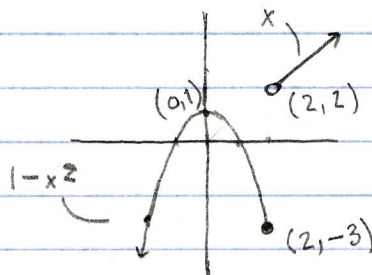


38) 
$$f(x) = \begin{cases} 2x+3 & \text{if } x < -1 \\ 3-x & \text{if } x \geq -1 \end{cases}$$

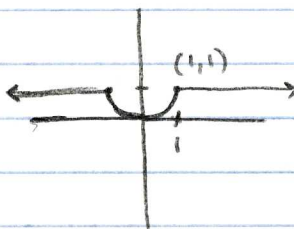


42, 44, 50, 52

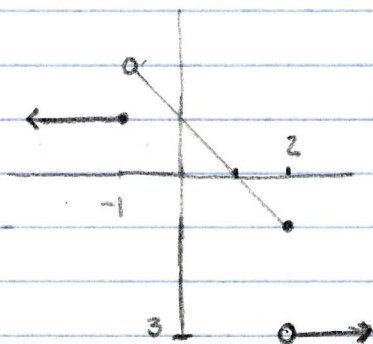
$$42) f(x) = \begin{cases} 1-x^2 & \text{if } x \leq 2 \\ x & \text{if } x > 2 \end{cases}$$



$$44) f(x) = \begin{cases} x^2 & \text{if } |x| \leq 1 \\ 1 & \text{if } |x| > 1 \end{cases}$$

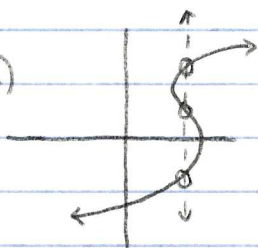


50)



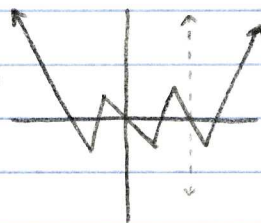
$$f(x) = \begin{cases} 1 & \text{if } x \leq -1 \\ 1-x & \text{if } -1 < x \leq 2 \\ -2 & \text{if } x > 2 \end{cases}$$

52) a)



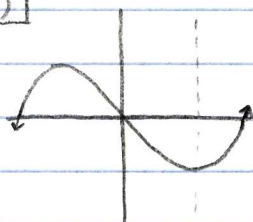
Test Fails

b)



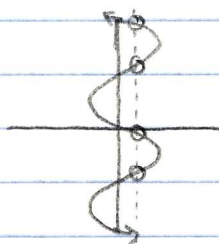
Graph is a function. by vertical Line Test

c)



Graph passes Vertical Line Test, so it is a function

d)



Test fails