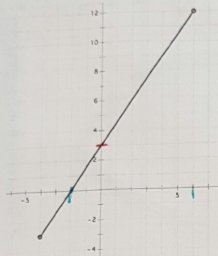


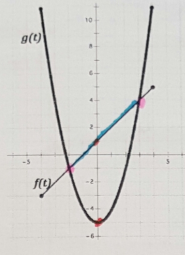
Class Notes 3.6

3.6 Interpreting Functions

Learning Target: Identify inputs and outputs of a function.



Graph #1



Graph #2

x	f(x)	g(x)
-5	42	-13
-4	30	-9
-3	20	-5
-2	12	-1
-1	6	3
0	2	7
1	0	11
2	0	15
3	2	19
4	6	23
5	12	27
6	20	31

Table

Graph #1

- $f(2) = 6$
- If  $f(x) = 3$ ,  $x = 0$
- x-intercept  $\rightarrow (-2, 0)$
- Domain  $\rightarrow [-4, 6]$
- $f(x) > 0$  on the interval  $(-2, 6]$   
( $f(-2) = 0$  so we don't include  $-2$ )
- Increasing  $[-4, 6]$
- Not decreasing
- $f(x) > 3$  on interval  $(0, 6]$

Graph #2

- $f(t) = g(t)$  at the points  $(-2, -1)$  and  $(3, 4)$
- $f(t) > g(t)$  on interval  $(-2, 3)$  (not including where  $x = -2$  +  $x = 3$ )
- $f(0) + g(0)$   
 $1 + -5 = -4$
- $f(-1) + g(-1)$   
 $0 + -4 = -4$
- Which is greater  $f(0)$  or  $g(-3)$   
 $1 < 4$

Table

- $g(-3) = -5$
- For what value(s) is  $f(x) = 0$   $x = 1$  and  $x = 2$
- $g(4) = 23$   $g(0) = 7$   $g(2) = 15$
- $f(-3) = 20$   $f(3) = 2$   $f(-1) = 6$
- If  $f(x) = 42$ ,  $x = -5$   
 $f(x) = 20$   $x = -3$  and  $5$
- If  $g(x) = -1$   $x = -2$
- If  $g(x) = 31$   $x = 6$