Name_____ class_____

Evaluating Functions from a Numerical Perspective (GIVEN A TABLE OF VALUES)

Target 1: I understand and can read function notation.

Explain in words what the following statements written in function Notation mean:

1. f(1) _____
2. f(a) _____
3. f(x) = 8 _____
4. f(3) + g(2) _____
5. $f^{-1}(0)$_____
6. f(g(-2))_____

Target 2: Given a table I can determine outputs of a function given a specified input and vice-versa.

x	-1	0	1	2	5
f(x)	7	6	7	10	31

EXAMPLE 1 : Determine the value of f(1)	EXAMPLE 2: Determine x if f(x)=6
f(1) = 7 *Justification:* *f(1) is asking you to find the output for the f(x) function when the input (x value) is 1. From the table the output (f(x)) at an x value of 1 is 7.*	X=0 *Justification:* *f(x)=6 is asking you to find the input (x-value) of the f(x) function when the output is 6. According to the table an input of x=0 had an output of 6.*

7. f(0)=_____ 8. f(-1) = _____ 9. f(5)= _____

10. Determine x if f(x)= 10 11. Determine x if f(x)= 7 12. $f^{-1}(31) =$ _____

_____ _____

Target 3: I understand how to evaluate combinations and compositions of functions given a table of values.

Use the table below to answer questions 13 and 14

x	f(x)	g(x)
-1	$\frac{1}{2}$	2
0	4	-1
$\frac{1}{2}$	$\frac{3}{2}$	0

13. $f(g(\frac{1}{2}))$ =_____ 14. $f^{-1}\left(\frac{3}{2}\right)$ =_____

Given the following table of values for the functions $f(x)\ and\ g(x)$, and $k(x)$ determine the following:

x	-4	-3	-2	0	a	2	3	5	h	a+h
f(x)	-3	a	2	-2	-3	5	-1	3	-2.5	-3.5
g(x)	3	2	2	-2	-1	0	2	-4	-1.5	-2
k(x)	.5	-4	a	2	-3	0	-1	3	3	3

15. $f(0) =$	16. $4k(5) =$	17. $f(-4) + g(2) =$
18. $\frac{3g(-3)}{k(a)}$=	19. $f(-2) - 4g(3)$=	20. $\frac{f^{-1}(3)}{k^{-1}(a)}$=
21. $k(-2) + 3g(a)$=	22. $k\big(g(2)\big) =$	23. $g(f(-3))$=
24. $k\big(g(-2)\big) =$	25. $g^{-1}\big(f(3)\big) =$	26. $f\big(k(a)\big) =$
27. $k\left(g\big(f(2)\big)\right) =$	28. $g(k(f(a)))$=	29. $g\left(f\big(g(-3)\big)\right) =$
30. If $k(x) = 2x + 10$, then for what value(s) of x is $k(x) = f(g\big(k(a)\big))$?	31. $f(a) + f(h)$=	32. $Is\ f(a) + f(h) = f(a + h)$?