

Name _____ Date _____ Pd _____

5.5b Operations with Functions DAY ONE CYU

Use when you get it right all by yourself

S Use when you did it all by yourself, but made a silly mistake

H Use when you could do it alone with a little help from teacher or peer

G Use when you completed the problem in a group

X Use when a question was attempted but wrong (get help)

N Use when a question was not even attempted

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Composition of Functions	1 - 3	4	
Evaluating Functions	1 - 3	4	
Domain of functions	1 - 3		5 - 10

Perform the indicated composition of functions. Restrict the domain. Finally evaluate for the value given.

1. $h(x) = x^2 - 2$
 $g(x) = 4x + 1$
Find $(h \circ g)(x)$

$(h \circ g)(3)$

2. $g(n) = 2n + 3$
 $h(n) = n - 1$
Find $(g \circ h)(n)$

$(g \circ h)(-2)$

3. $f(n) = 2n$
 $g(n) = -n - 4$
Find $(f \circ g)(n)$

$(f \circ g)(0)$

4. Let $f(x) = 2x^2 - 3x$, $g(x) = 3x + 2$, and $h(x) = 2x - 9$. Find $g(h(x))$ and $f(h(2))$.

II. Restrict the following domains, in interval notation. Show all work to earn full credit.

5. $f(x) = x^2 - 2x$

6. $g(x) = \frac{2x+4}{x-8}$

7. $h(x) = \sqrt{6x - 18}$

8. $k(x) = \frac{1}{\sqrt{3x+9}}$

9. $m(x) = \sqrt[3]{3x+1}$

10. $j(x) = (-3 + x)^{\frac{1}{2}}$

CYU Reflection: *How far can you go: basic, intermediate, or advanced?*

Rate your mastery level!

How confident are you with the skills this CYU covered? Circle the score you would give yourself

