Name

5.5 Operations with Functions DAY TWO CYU

Use when you get it right all by yourself

 ${\it S}$ Use when you did it all by yourself, but made a silly mistake

Date

Pd

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

 ${\it G}$ Use when you completed the problem in a group

 \pmb{X} Use when a question was attempted but wrong (get help)

NUse when a question was not even attempted

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Adding Functions	5, 7		
Subtracting Functions	1,6		
Evaluating Functions		1 - 8	
Domain of functions			1 - 8
Multiplying Functions	3, 4		
Dividing Functions	2, 8		

Perform the indicated operation. Then restrict the domain for each problem below in interval notation. Finally evaluate for the given x value.

- 1. $g(x) = -x^2 1 2x$ f(x) = x + 5(g - f)(x) and when x = 7.
- 2. f(x) = 3x 1 $g(x) = x^{2} x$ $\left(\frac{f}{g}\right)(x) \text{ and when } x = -3.$

3. $f(x) = 2x^3 - 5x^2$ g(x) = 2x - 1 $(f \cdot g)(x)$ and when x = 0.

- 4. g(x) = 2x + 5 $f(x) = -x^2 + 5$ Find (g + f)(x) and when x = -2.
- 5. f(x) = 4x 3 $g(x) = x^3 + 2$ Find (f - g)(x) and when x = 4.
- 6. h(x) = 3x + 3 g(x) = -4x + 1Find (h + g)(x) and (h + g)(10).

7.
$$g(n) = n^2 + 4 + 2n$$

 $h(n) = -3n + 2$
 $(g \cdot h)(x)$ and $x = 1$

8. g(x) = 3x + 2 f(x) = 2x - 4Find $\left(\frac{g}{f}\right)(x)$ and when x = 3.

