Name $\qquad$ Date $\qquad$ Pd $\qquad$
5.5 Operations with Functions DAY TWO CYU
$\square$ Use when you get it right all by yourself

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

HUse when you could do it alone with a little help from teacher or peer
$\boldsymbol{G}$ 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 |
| :--- | :---: | :---: | :---: |
| Adding Functions | 5,7 |  |  |
| Subtracting Functions | 1,6 |  |  |
| Evaluating Functions |  | $1-8$ | $1-8$ |
| Domain of functions | 3,4 |  |  |
| Multiplying Functions | 2,8 |  |  |
| Dividing Functions |  |  |  |

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

1. $g(x)=-x^{2}-1-2 x$
$f(x)=x+5$
$(g-f)(x)$ and when $x=7$.
2. $f(x)=3 x-1$
$g(x)=x^{2}-x$
$\left(\frac{f}{g}\right)(x)$ and when $x=-3$.
3. $f(x)=2 x^{3}-5 x^{2}$
$g(x)=2 x-1$
$(f \cdot g)(x)$ and when $\mathrm{x}=0$.
4. $g(x)=2 x+5$
$f(x)=-x^{2}+5$
Find $(g+f)(x)$ and when $x=-2$.
5. $f(x)=4 x-3$
$g(x)=x^{3}+2$
Find $(\mathrm{f}-\mathrm{g})(\mathrm{x})$ and when $\mathrm{x}=4$.
6. $h(x)=3 x+3$
$g(x)=-4 x+1$
Find $(\mathrm{h}+\mathrm{g})(\mathrm{x})$ and $(\mathrm{h}+\mathrm{g})(10)$.
7. $g(n)=n^{2}+4+2 n$
$h(n)=-3 n+2$
$(g \cdot h)(x)$ and $\mathrm{x}=1$
8. $g(x)=3 x+2$
$f(x)=2 x-4$
Find $\left(\frac{g}{f}\right)(x)$ and when $\mathrm{x}=3$.

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


