Name: $\qquad$
$\qquad$

## Letter Land

Each letter $A, B, C, D, E, F, G$, and $H$ represents a number from 0 to 7 . Each number will only be used once, with no repetition.

If:

$$
\begin{aligned}
& A+C=A \\
& F \cdot D=F \\
& B-G=G \\
& A+H=E \\
& B \div H=G \\
& E-G=F
\end{aligned}
$$



## Questions:

1.) What variable can you determine the value of first? Second? Why?
2.) What mathematical properties are you able to apply to determine the value of some variables?
3.) What strategies did you use to solve for the remaining variables? What did you do if you got stuck?

Final Solutions:

| $A$ |  |
| :---: | :--- |
| $B$ |  |
| C |  |
| $D$ |  |
| $E$ |  |
| $F$ |  |
| $G$ |  |
| $H$ |  |

This problem was taken from nrich.maths.org: http://nrich.maths.org/850

