Name: $\qquad$

## Following the Rules!

Sometimes, the equations (or rules) that are given in a problem are a little more complicated than $y=2 x$. It is important to remember the steps for evaluating equations when we are faced with more difficult rules. We can find points that fit into any equation by following three steps:

Step 1: Substitute a number for x .
Step 2: Solve for y according to the order of operations.
Step 3: Record the value you calculated for y so that you can later graph the rule.

Example: For the equation $y=2 x^{3}+5 x-26$, what is $y$ when $x=2$ ? Show all the steps!

Example: Now try $x=-3$ for the same equation.

Your turn. For the following problems, fill in the table with the appropriate x and y points.

1. $y=\frac{24}{x}$

| x | -2 | -1 | 0 | 1 | 2 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| Show your <br> work here |  |  |  |  |  |
| y |  |  |  |  |  |

2. $y=x^{3}-2 x^{2}+8$

| x | -2 | -1 | 0 | 1 | 2 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| Show your <br> work here |  |  |  |  |  |
| y |  |  |  |  |  |

3. $y=3^{x}+2$

| x | -2 | -1 | 0 | 1 | 2 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| Show your <br> work here |  |  |  |  |  |
| y |  |  |  |  |  |

4. $y=|x+2|$

| x | -2 | -1 | 0 | 1 | 2 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| Show your <br> work here |  |  |  |  |  |
| y |  |  |  |  |  |

