$\qquad$ Class $\qquad$ Date $\qquad$

## 4-4 <br> Reteaching

By finding values that satisfy a function rule, you can graph points and discover the shape of its graph.

## Problem

What is the graph of the function rule $y=3 x+5$ ?

First, choose any values for $x$ and find the corresponding values of $y$. Make a table of your values.

| $\boldsymbol{x}$ | $\boldsymbol{y}=\mathbf{3 x}+\mathbf{5}$ | $(x, y)$ |
| ---: | :--- | ---: |
| -2 | $y=3(-2)+5=-1$ | $(-2,-1)$ |
| -1 | $y=3(-1)+5=2$ | $(-1,2)$ |
| 0 | $y=3(0)+5=5$ | $(0,5)$ |
| 1 | $y=3(1)+5=8$ | $(1,8)$ |
| 2 | $y=3(2)+5=11$ | $(2,11)$ |

## Problem

What is the graph of the function rule $y=|x-2|$ ?
First, choose any values for $x$ and find the corresponding values of $y$. Make a table of your values.

| $\boldsymbol{x}$ | $\boldsymbol{y}=\|\boldsymbol{x}-\mathbf{2}\|$ | $(x, y)$ |
| :---: | :---: | :---: |
| 0 | $y=\|0-2\|=2$ | $(0,2)$ |
| 1 | $y=\|1-2\|=1$ | $(1,1)$ |
| 2 | $y=\|2-2\|=0$ | $(2,0)$ |
| 3 | $y=\|3-2\|=1$ | $(3,1)$ |
| 4 | $y=\|4-2\|=2$ | $(4,2)$ |

Then, graph the points from your table. In this case, the points are in a line. Draw the line.


Then, graph the points from your table. In this case, the points make a V shape. Draw the V.

$\qquad$ Date $\qquad$

## Exercises

Graph each function rule.

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

2. $y=-x-3$

4. $y=|x|+1$


