4.8 Reflections

SWBAT identify reflections and use them to graph functions.
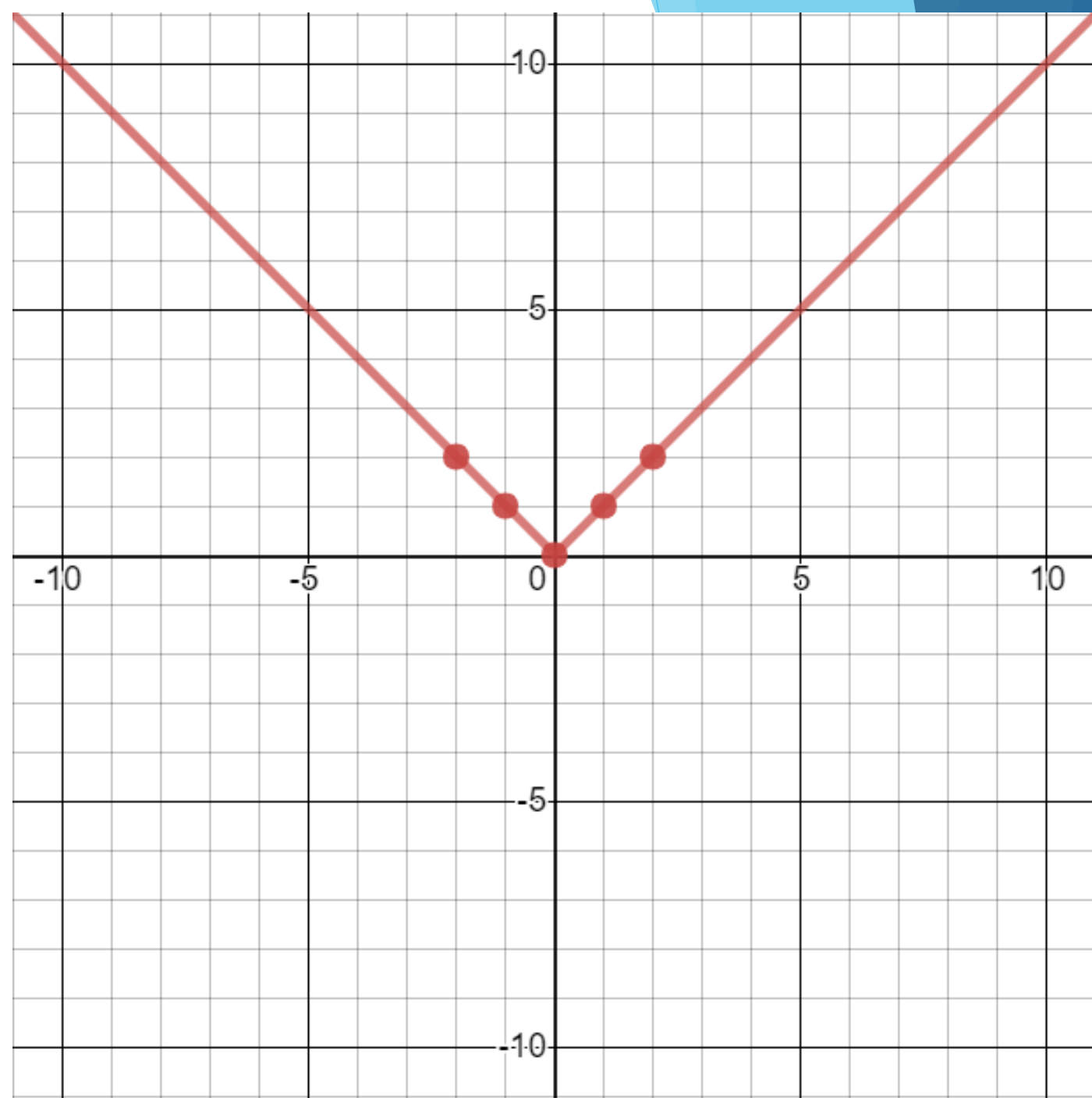
Assignments

HW30

Reflections

- Create a table and graph the function.

- $f(x) = |x|$

- $g(x) = -|x|$

- What happened?

- When we _____ the _____ by a negative, the graph _____.
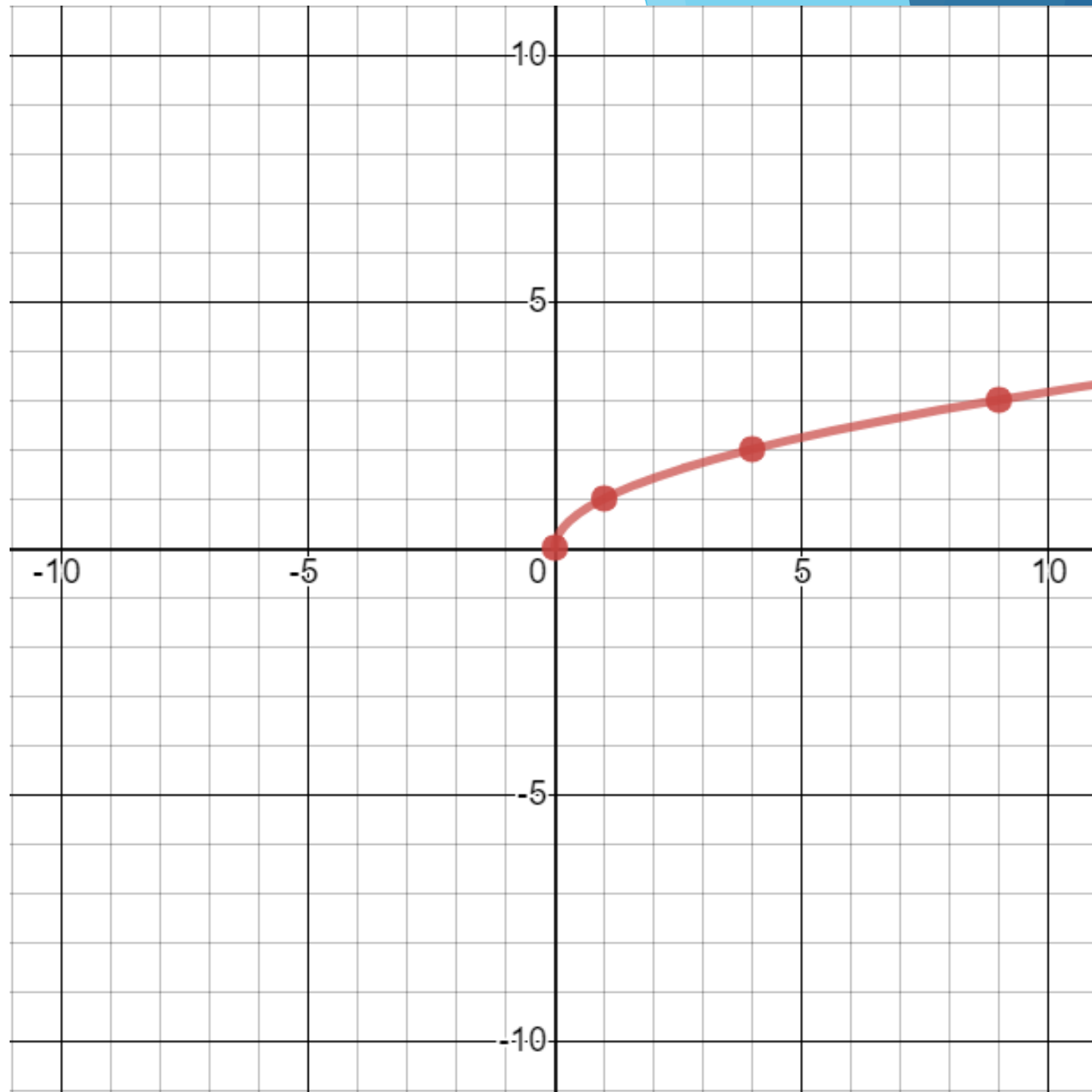
Reflections

- ▶ Create a table and graph the function.

- ▶ $f(x) = \sqrt{x}$
- ▶ $g(x) = \sqrt{-x}$

- ▶ What happened?

- ▶ When we _____ the _____ by a negative, the graph _____.

Reflections

- $-f(x)$

- Multiplying the output by a negative reflects the graph across the x-axis

- $f(-x)$

- Multiplying the input by a negative reflects the graph across the y-axis

Identify the parent function and the transformation.

1. $f(x) = -|x|$
2. $g(x) = -\sqrt{x}$
3. $h(x) = |-x|$
4. $k(x) = \sqrt{-x}$
5. $b(x) = -|x| - 6$
6. $j(x) = \sqrt{-x} + 8$
7. $r(x) = -\sqrt{x} - 7$

Hint: Reflect before you shift!