Math 2   Name _____
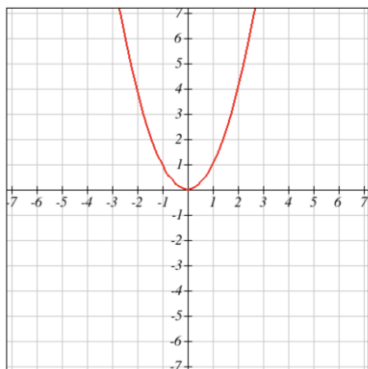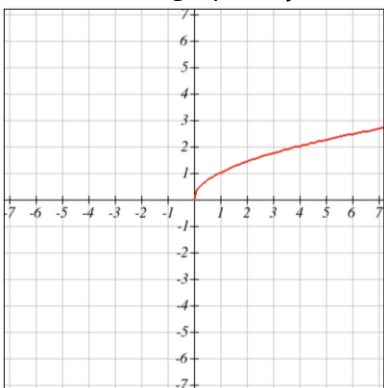
Transformations   Date _____ Per ____

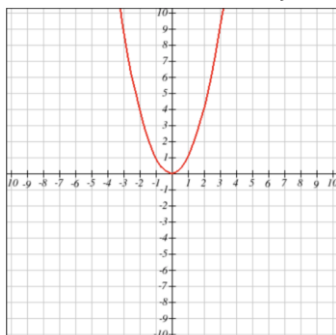For each problem describe the transformation and sketch a graph.

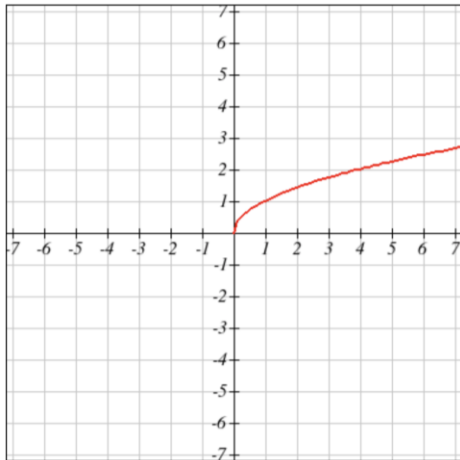1. Given the graph of $f(x) = x^2$ as shown, graph the function $f(x + 3)$

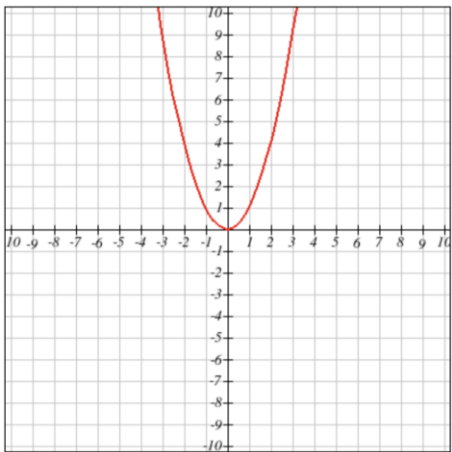2. Given the graph of $f(x) = \sqrt{x}$ as shown, graph the function $f(x - 1)$

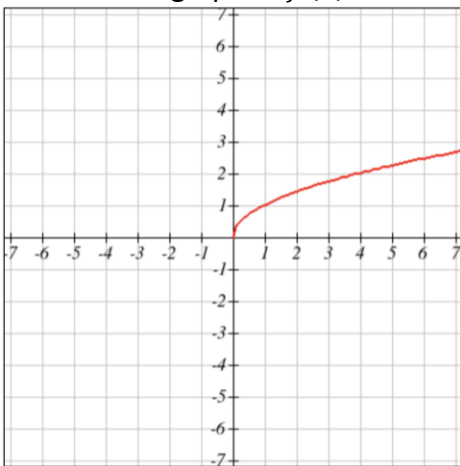3. Given the graph of $f(x) = x^2$ as shown, graph the function $f(x) + 4$

4. Given the graph of $f(x) = \sqrt{x}$ as shown, graph the function $f(x) - 5$
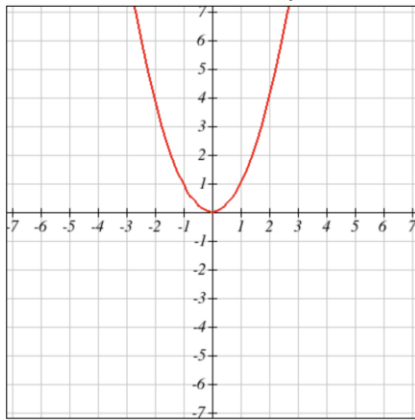

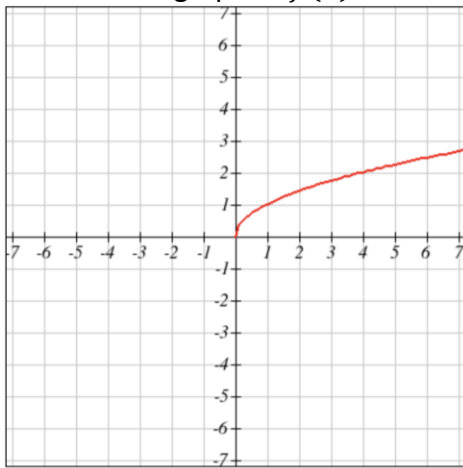5. Given the graph of $f(x) = x^2$ as shown, graph the function $f(x + 3) + 5$

6. Given the graph of $f(x) = \sqrt{x}$ as shown, graph the function $f(x + 5) + 2$
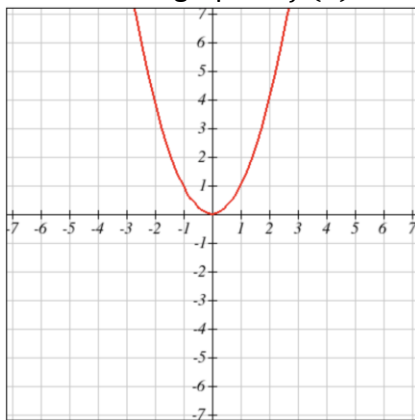
7. Given the graph of $f(x) = \sqrt{x}$ as shown, graph the function $-f(x-1)$
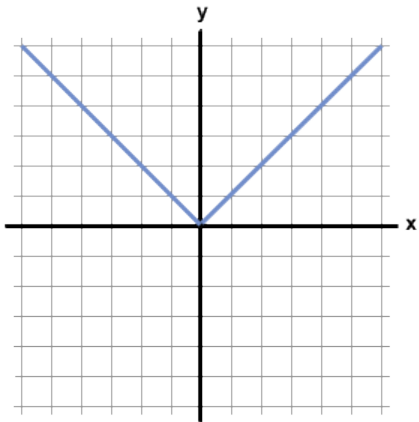

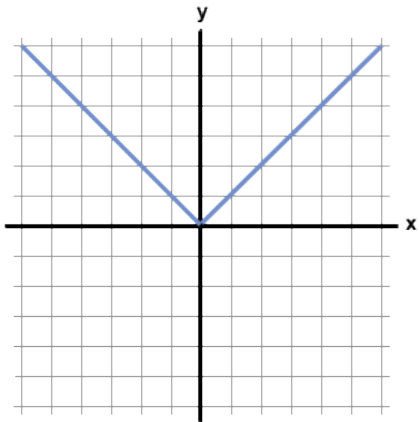8. Given the graph of $f(x) = \sqrt{x}$ as shown, graph the function $-f(x) - 3$

9. Given the graph of $f(x) = \sqrt{x}$ as shown, graph the function $-3f(x+5)$

10. Given the graph of $f(x) = |x|$ as shown, graph the function $\frac{1}{2}f(x-2)+1$

11. Given the graph of $f(x) = |x|$ as shown, graph the function $-2f(x)+4$

12. Given the graph of $f(x) = |x|$ as shown, graph the function $-\frac{1}{4}f(x+2)-3$