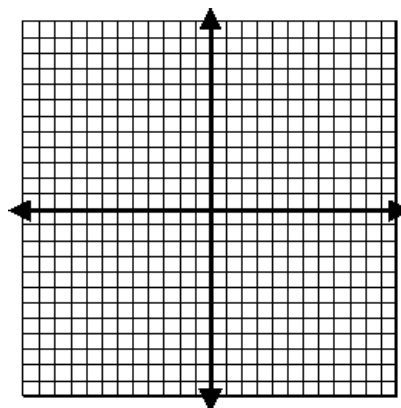
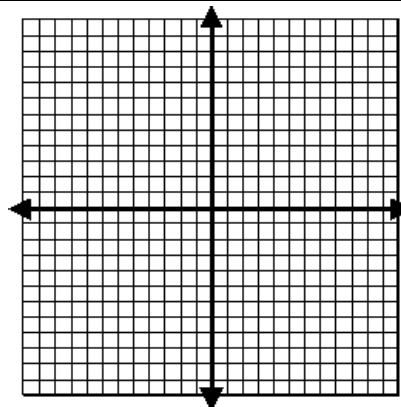


Graph the function. Describe the domain and range. Compare the graph to the graph of $f(x) = \sqrt{x}$.

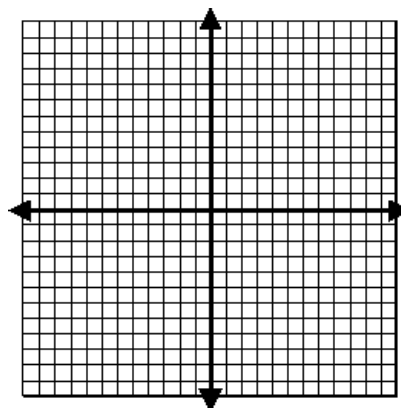
1. $f(x) = \sqrt{x} + 7$



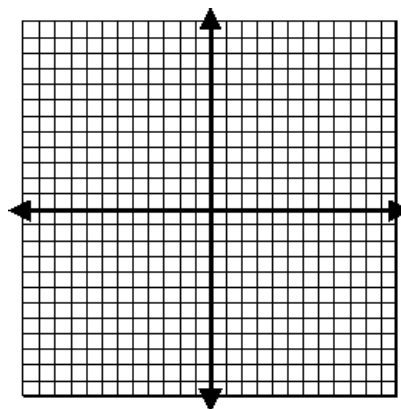
2. $f(x) = 3\sqrt{-x}$



3. $f(x) = -\sqrt{x-1}$



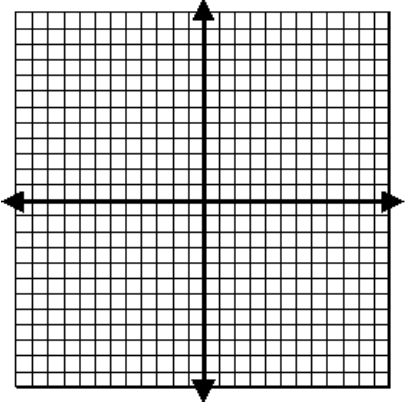
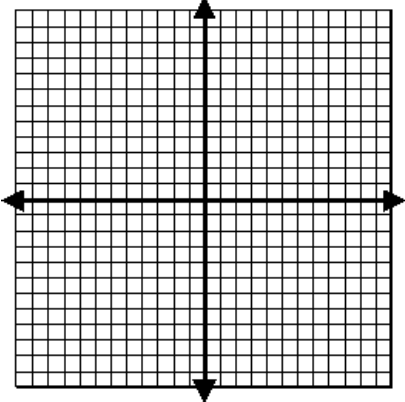
4. $f(x) = \sqrt{x+2} - 5$



5. Consider the form $f(x) = \underline{\hspace{1cm}}\sqrt{x - \underline{\hspace{1cm}}} + \underline{\hspace{1cm}}$. Fill in the missing spaces based on the following information:

- Vertical Shrink by a factor of $\frac{2}{3}$
- Vertical Shift down 6
- Horizontal shift right 1
- Reflect over the x-axis

Find the inverse of the function and graph its inverse.

6. $f(x) = -5x + 10$	
7. $f(x) = x^2 + 3, x \geq 0$	

Find the inverse of the relation/function.

8. $\{(1, -10); (3, -4); (5, 4); (7, 14); (9, 26)\}$	9. <table border="1" data-bbox="917 1337 1291 1432"> <tr> <td>Input</td> <td>-4</td> <td>-2</td> <td>0</td> <td>2</td> <td>4</td> </tr> <tr> <td>Output</td> <td>6</td> <td>3</td> <td>0</td> <td>3</td> <td>6</td> </tr> </table>	Input	-4	-2	0	2	4	Output	6	3	0	3	6
Input	-4	-2	0	2	4								
Output	6	3	0	3	6								
10. a. $f(x) = 2x + 1$ b. Is the inverse of $f(x) = 2x + 1$ a function?	11. a. $f(x) = x^2 + 4; x \geq 0$ b. Is the inverse of $f(x) = x^2 + 4$ a function?												

Solve the radical equation. Check your answers for extraneous solutions.

12. $8 + \sqrt{x} = 18$

13. $3 = \sqrt{x - 1}$

14. $\sqrt{5x - 9} = \sqrt{4x}$

15. $8\sqrt{x - 5} + 34 = 58$

16. $\sqrt{5x} + 6 = 5$

17. $\sqrt{3 - x} + 2 = 7$

18. $x = \sqrt{3x + 4}$

19. $\sqrt{4x + 5} = 3x$