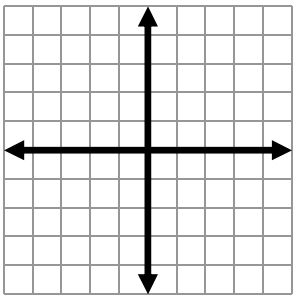
IM 3 6-8 Graphing Radical Functions Notes

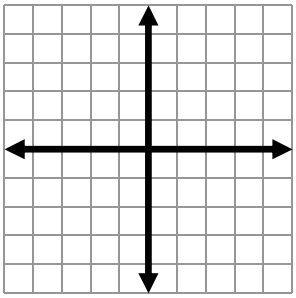
Name:_____Per:_____Date:_____

Using Desmos, graph the following and state the domain and range. Make sure your graphs are neat and be concise in your explanations.

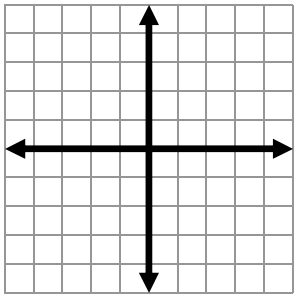
1. Graph $y = \sqrt{x}$.



2. Graph $y = \sqrt{x} - 3$. How is the graph translated from $y = \sqrt{x}$?

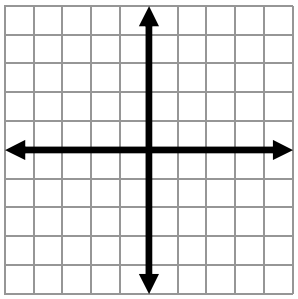


3. Graph $y = \sqrt{x} + 3$. How is the graph translated from $y = \sqrt{x}$?

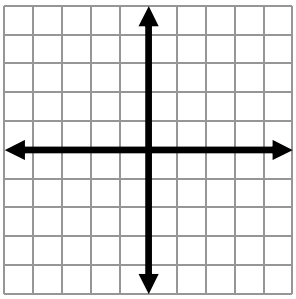


4. Describe the translation of $y = \sqrt{x} + k$ from the graph of $y = \sqrt{x}$. How is the graph translated if k is negative?

5. Graph $y = \sqrt{x-2}$. How is the graph translated from $y = \sqrt{x}$?



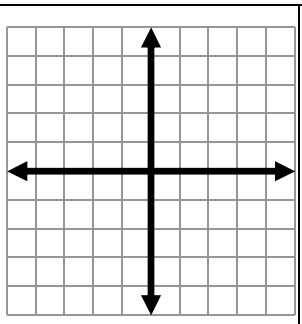
6. Graph $y = \sqrt{x+2}$. How is the graph translated from $y = \sqrt{x}$?



7. Describe the translation of $y = \sqrt{x-h}$ from the graph of $y = \sqrt{x}$. How is the graph translated if h is negative?

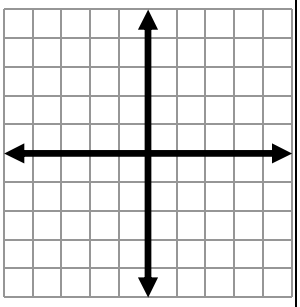
8. Describe the translation of $y = \sqrt{x-h} + k$ from the graph of $y = \sqrt{x}$.

9. Graph $y=\frac{1}{2}\sqrt{x+2}-1$.



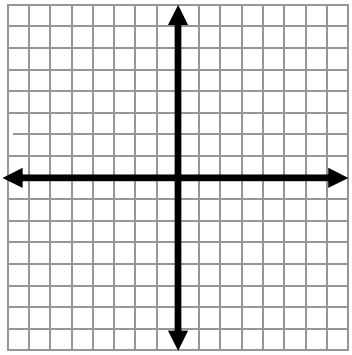
10. Describe the transformation of $y=\frac{1}{2}\sqrt{x+2}-1$ from the graph of $y=\sqrt{x}$.

11. Graph $y=2\sqrt{x-1}+2$.

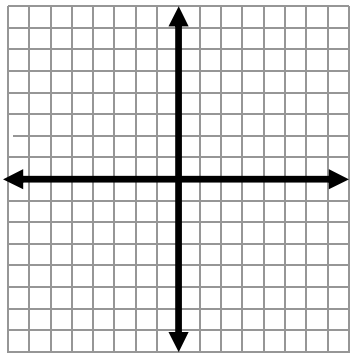


12. Describe the transformation of $y=2\sqrt{x-1}+2$ from the graph of $y=\sqrt{x}$.

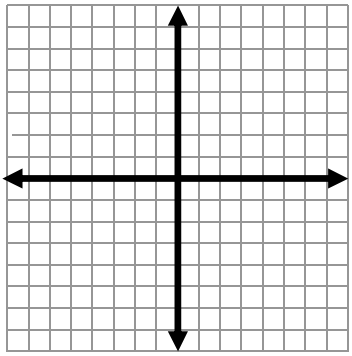
13. Graph $y=\sqrt[3]{x}$



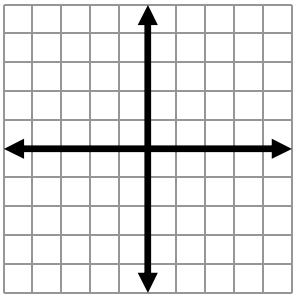
14. Graph $y=\sqrt[3]{x}-4$. How is the graph translated from $y=\sqrt[3]{x}$?



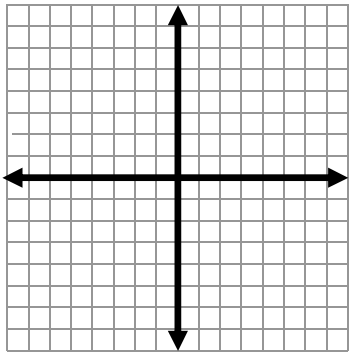
15. Graph $y=\sqrt[3]{x+4}$. How is the graph translated from $y=\sqrt[3]{x}$?



16. Graph $y=-\sqrt{x+3}$. How is the graph transformed from $y=\sqrt{x}$?



17. Graph $y=-\sqrt[3]{x-4}+5$. How is the graph transformed from $y=\sqrt[3]{x}$?



18. Graph $y=-\sqrt{-x}$. How is the graph transformed from $y=\sqrt{x}$?