

5.7 – HW -Radical Characteristics

Honors Algebra 2

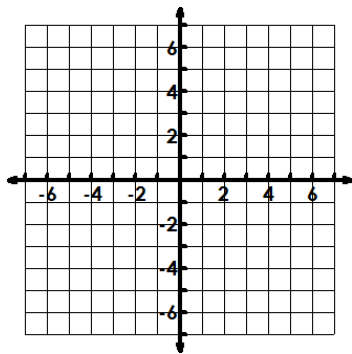
Name: _____

Date: _____

Sketch the graph and fill in the chart for each. Make a chart of your points by each graph.

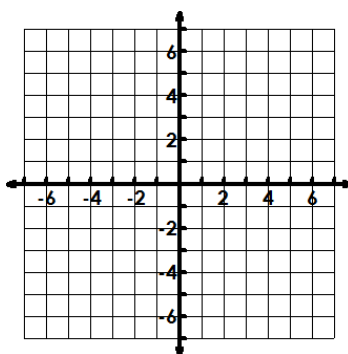
1. $f(x) = 2\sqrt{x-2} + 3$

Starting Pt:	Inc or Dec:
Domain:	Range:
Abs. Max or Abs Min:	
End Behavior: $x \rightarrow \underline{\hspace{1cm}}, f(x) \rightarrow \underline{\hspace{1cm}}$ $x \rightarrow \underline{\hspace{1cm}}, f(x) \rightarrow \underline{\hspace{1cm}}$	



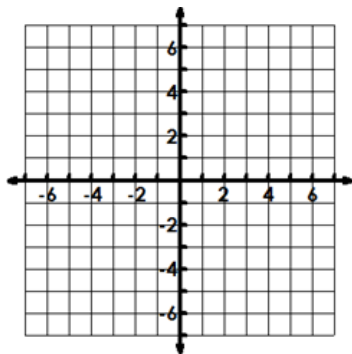
2. $f(x) = \sqrt{-\frac{1}{2}(x+1)} - 2$

Starting Pt:	Inc or Dec:
Domain:	Range:
Abs. Max or Abs Min:	
End Behavior: $x \rightarrow \underline{\hspace{1cm}}, f(x) \rightarrow \underline{\hspace{1cm}}$ $x \rightarrow \underline{\hspace{1cm}}, f(x) \rightarrow \underline{\hspace{1cm}}$	



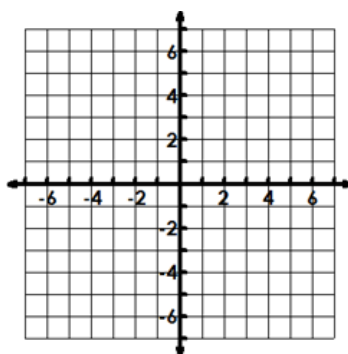
3. $f(x) = -\sqrt[3]{-(x-1)} + 2$

Starting Pt:	Inc or Dec:
Domain:	Range:
Abs. Max or Abs Min:	
End Behavior: $x \rightarrow \underline{\hspace{1cm}}, f(x) \rightarrow \underline{\hspace{1cm}}$ $x \rightarrow \underline{\hspace{1cm}}, f(x) \rightarrow \underline{\hspace{1cm}}$	



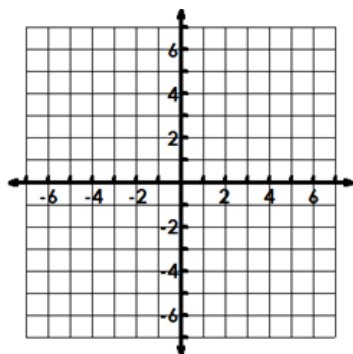
4. $f(x) = -\frac{1}{4}\sqrt[3]{x+1} - 5$

Starting Pt:	Inc or Dec:
Domain:	Range:
Abs. Max or Abs Min:	
End Behavior: $x \rightarrow \underline{\hspace{1cm}}, f(x) \rightarrow \underline{\hspace{1cm}}$ $x \rightarrow \underline{\hspace{1cm}}, f(x) \rightarrow \underline{\hspace{1cm}}$	



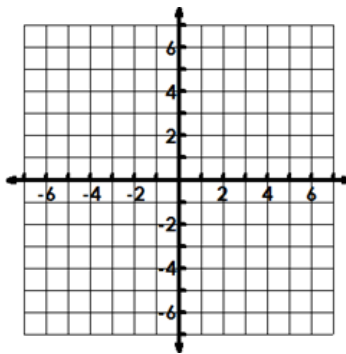
5. $f(x) = -\sqrt{-(x-1)} - 3$

Starting Pt:	Inc or Dec:
Domain:	Range:
Abs. Max or Abs Min:	
End Behavior: $x \rightarrow \underline{\hspace{2cm}}, f(x) \rightarrow \underline{\hspace{2cm}}$ $x \rightarrow \underline{\hspace{2cm}}, f(x) \rightarrow \underline{\hspace{2cm}}$	



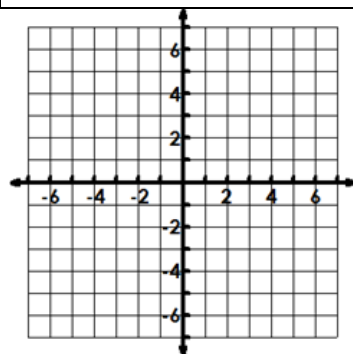
6. $f(x) = \sqrt{-3(x+2)} - 3$

Starting Pt:	Inc or Dec:
Domain:	Range:
Abs. Max or Abs Min:	
End Behavior: $x \rightarrow \underline{\hspace{2cm}}, f(x) \rightarrow \underline{\hspace{2cm}}$ $x \rightarrow \underline{\hspace{2cm}}, f(x) \rightarrow \underline{\hspace{2cm}}$	



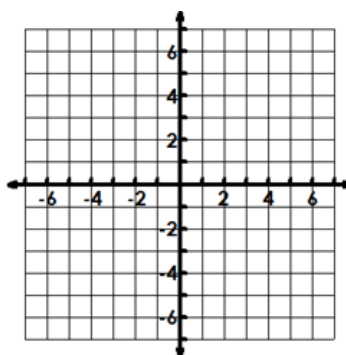
7. $f(x) = -4\sqrt[3]{x+2} + 4$

Starting Pt:	Inc or Dec:
Domain:	Range:
Abs. Max or Abs Min:	
End Behavior: $x \rightarrow \underline{\hspace{2cm}}, f(x) \rightarrow \underline{\hspace{2cm}}$ $x \rightarrow \underline{\hspace{2cm}}, f(x) \rightarrow \underline{\hspace{2cm}}$	



8. $f(x) = \sqrt[3]{-\frac{1}{2}(x-2)} - 1$

Starting Pt:	Inc or Dec:
Domain:	Range:
Abs. Max or Abs Min:	
End Behavior: $x \rightarrow \underline{\hspace{2cm}}, f(x) \rightarrow \underline{\hspace{2cm}}$ $x \rightarrow \underline{\hspace{2cm}}, f(x) \rightarrow \underline{\hspace{2cm}}$	



Write the equation of the radical with the given transformations.

9. Compressed vertically by $\frac{2}{3}$, reflected over the x-axis, left 31, and down 24.

10. Compressed horizontally by $\frac{1}{2}$, reflected over the x-axis, right 29, and up 87.