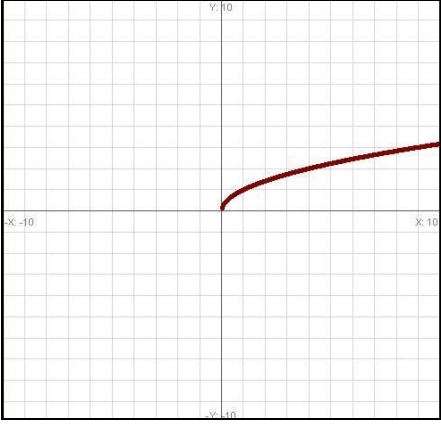
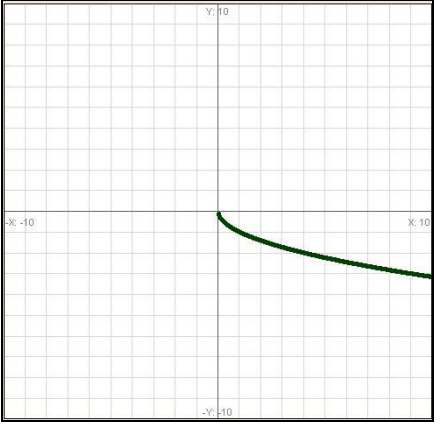
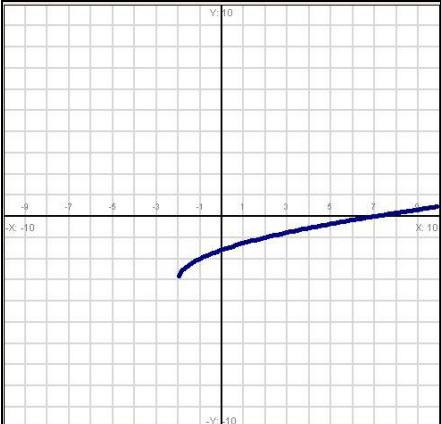
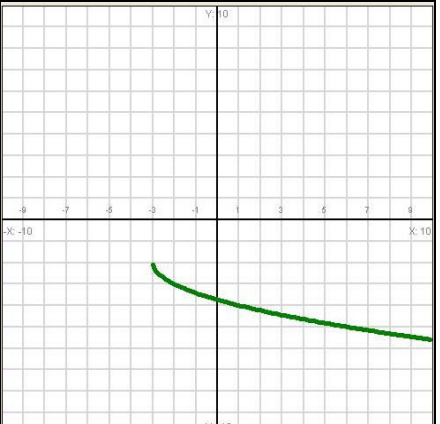


## A Selection of Radical Functions

### Discussion & Examples of Radical Functions & Practice Graphing Rational Functions

- @ Review discussion of Reciprocal Function & Investigate & Practice Characteristics below! @  
 @ What can you conclude about characteristics from discussion and sample graphs? @

$y \text{ or } f(x) = \sqrt{x} \quad * -10 < x \& y < +10$ <b>Note the position &amp; size!</b> <b>Determine Domain &amp; Range!</b>	<b>Verify GC</b> <b>by</b> <b>Table!</b>	$y \text{ or } f(x) = -\sqrt{x} \quad * -10 < x \& y < +10$ <b>Note the position &amp; size!</b> <b>Determine Domain &amp; Range!</b>																								
	<table style="margin: auto;"> <tr><td><b>X</b></td><td><b>Y</b></td></tr> <tr><td>0</td><td>0</td></tr> <tr><td>+1</td><td>+1</td></tr> <tr><td>+4</td><td>+2</td></tr> <tr><td>-1</td><td>Undef</td></tr> <tr><td>-4</td><td>Undef</td></tr> <tr><td><b>X</b></td><td><b>Y</b></td></tr> <tr><td>0</td><td>0</td></tr> <tr><td>+1</td><td>-1</td></tr> <tr><td>+4</td><td>-2</td></tr> <tr><td>-1</td><td>Undef</td></tr> <tr><td>-4</td><td>Undef</td></tr> </table>	<b>X</b>	<b>Y</b>	0	0	+1	+1	+4	+2	-1	Undef	-4	Undef	<b>X</b>	<b>Y</b>	0	0	+1	-1	+4	-2	-1	Undef	-4	Undef	
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$f(x) = \sqrt{(x+2)} - 3 \quad * -10 < x \& y < +10$ <b>How does (+ &amp; -) affect Graph?</b> <b>Determine Domain &amp; Range!</b>	<b>Verify GC</b> <b>by</b> <b>Table!</b>	$f(x) = -\sqrt{(x+3)} - 2 \quad * -10 < x \& y < +10$ <b>How does (+ &amp; -) affect Graph?</b> <b>Determine Domain &amp; Range!</b>																								
	<table style="margin: auto;"> <tr><td><b>X</b></td><td><b>Y</b></td></tr> <tr><td>-2</td><td>-3</td></tr> <tr><td>+2</td><td>-1</td></tr> <tr><td>0</td><td>-1.6</td></tr> <tr><td>+7</td><td>0</td></tr> <tr><td>-5</td><td>Undef</td></tr> <tr><td><b>X</b></td><td><b>Y</b></td></tr> <tr><td>-3</td><td>-2</td></tr> <tr><td>+1</td><td>-4</td></tr> <tr><td>+6</td><td>-5</td></tr> <tr><td>-6</td><td>Undef</td></tr> <tr><td>0</td><td>-3.7</td></tr> </table>	<b>X</b>	<b>Y</b>	-2	-3	+2	-1	0	-1.6	+7	0	-5	Undef	<b>X</b>	<b>Y</b>	-3	-2	+1	-4	+6	-5	-6	Undef	0	-3.7	
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### Investigate Radical Functions as well as Domain & Range!

The General Equation for Radical Functions?  $y = \pm A(\sqrt{\pm Bx \pm C}) \pm D$   
 What is a Quadratic Function rotated 90° and showing half the graph?