

3-4 Graphing Radical Functions

Objectives:

3-4a: I can graph radical functions by hand.

3-4b: I can identify the transformations of a radical function.

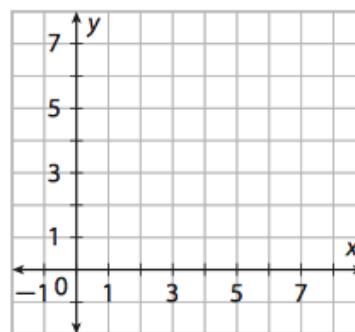
3-4c: I can write the equation of a radical function from a graph.

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Graph the following and state the domain, range, and end behavior

$$f(x) = \sqrt{x}$$

x	$f(x) = \sqrt{x}$
0	
1	
4	
9	



Domain:

End Behavior

Range:

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Transformation Form:

$$f(x) = a(x-h) + k$$

Transformation Form:

$$f(x) = a\sqrt{x-h} + k$$

	Vertical (Range)	Horizontal (Domain)
Shift		
Stretch		-----
Reflection		-----

Domain changes

Range changes

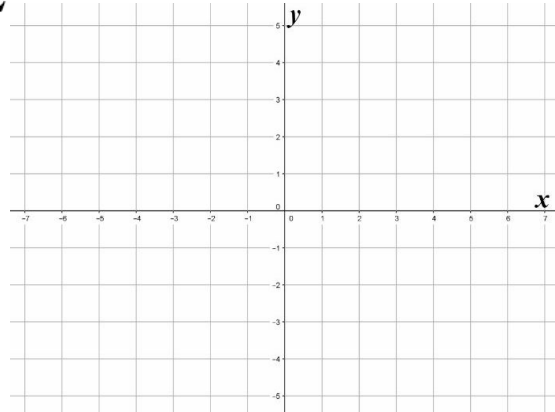
Graph, state the transformations, and find the Domain and Range

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

Domain:

Range:

Transformations:



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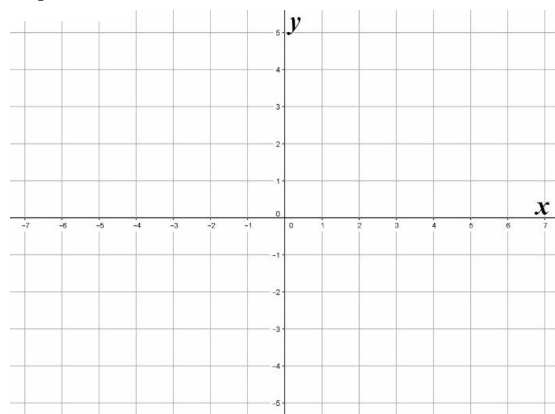
Graph, state the transformations, and find the Domain and Range

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

Domain:

Range:

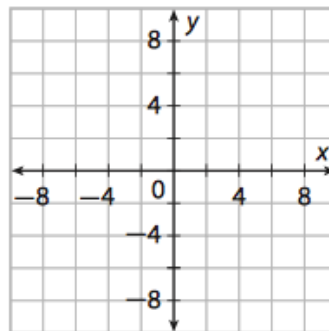
Transformations:



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Graph the following and state the domain, range, and end behavior $f(x) = \sqrt[3]{x}$

x	y	x, y
-8		
-1		
0		
1		
8		



Domain:

End Behavior

Range:

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Transformation Form:

$$f(x) = a\sqrt[3]{(x-h)} + k$$

	Vertical (Range)	Horizontal (Domain)
Shift		
Stretch		-----
Reflection		-----

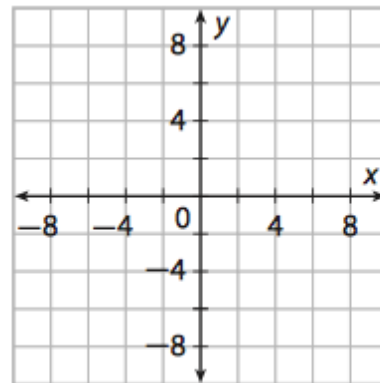
Domain changes

Range changes

Aug 11-8:51 AM

Graph the following and state the transformations, domain and range.

$$g(x) = 2\sqrt[3]{x-3} + 5$$



Domain:

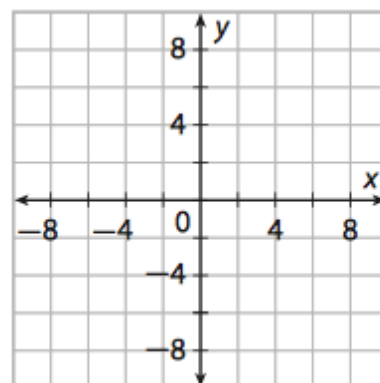
Range:

Transformations:

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Graph the following and state the transformations, domain and range.

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



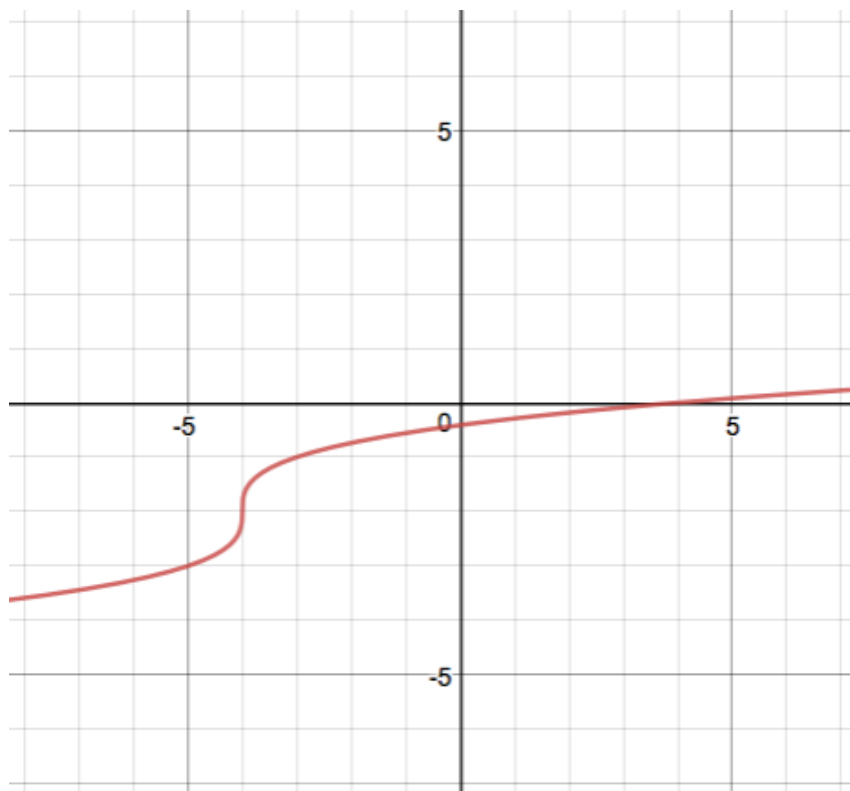
Domain:

Range:

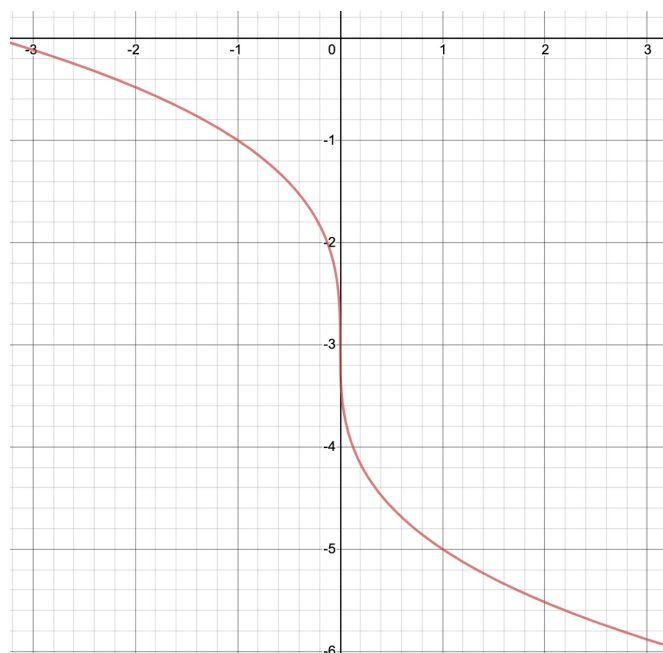
Transformations:

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Write an equation to represent the following

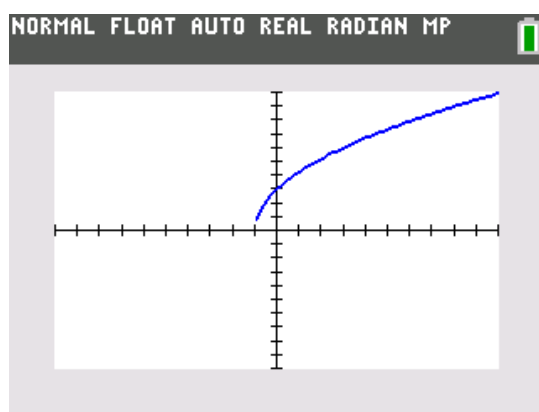


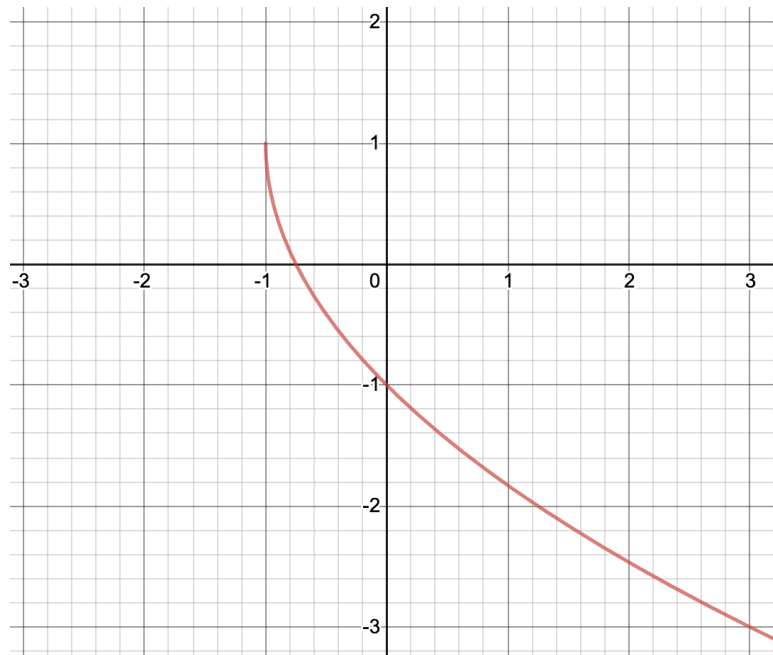
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$$f(x) = -2 \sqrt[3]{x} - 3$$

Write an equation to represent the following





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