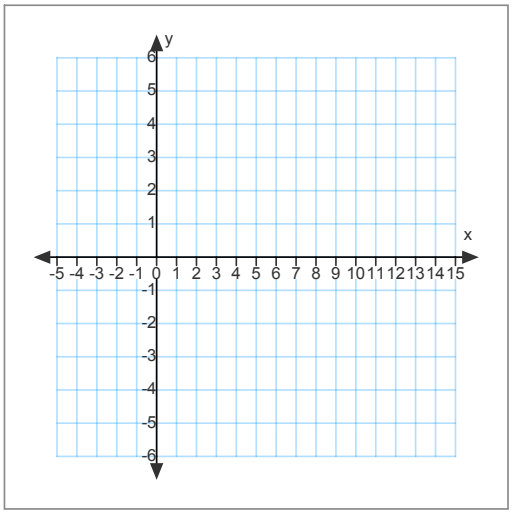
Unit 2:Mid-Unit Review

Lesson 4

Example 1. Solve the radical equation $\sqrt{2x-1}-1=4$ both graphically and algebraically. Verify your solution. State the domain and range of the function.



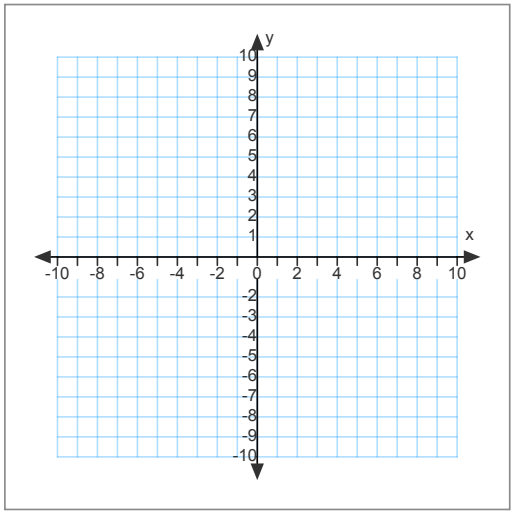
Example 2: Explain the transformations required to change the graph of $y = \sqrt{x}$ to obtain the graph of $y = 4\sqrt{5 - x} + 1$. Sketch the new function by mapping the points and state its domain and range.

$y = \sqrt{x}$

x	$f(x)$	$(x, y) \rightarrow (\quad , \quad)$
0		$(\quad , \quad) \rightarrow (\quad , \quad)$
1		$(\quad , \quad) \rightarrow (\quad , \quad)$
4		$(\quad , \quad) \rightarrow (\quad , \quad)$
9		$(\quad , \quad) \rightarrow (\quad , \quad)$

Domain:

Range:



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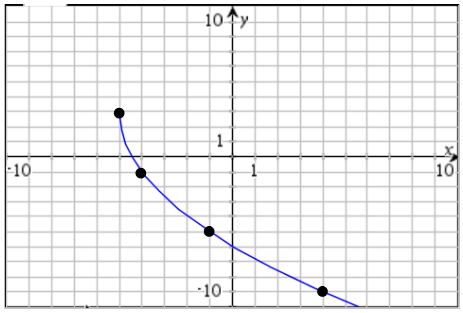
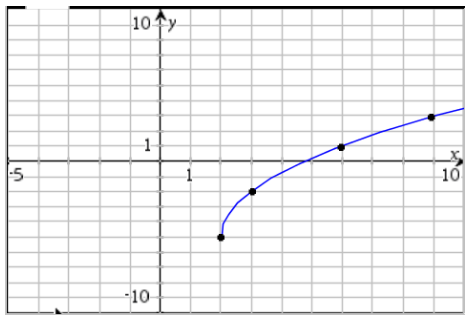
Example 3: For each graph, write the equation of a radical function in the form $y = a\sqrt{b(x-h)} + k$. State the domain and range.

a.



b.



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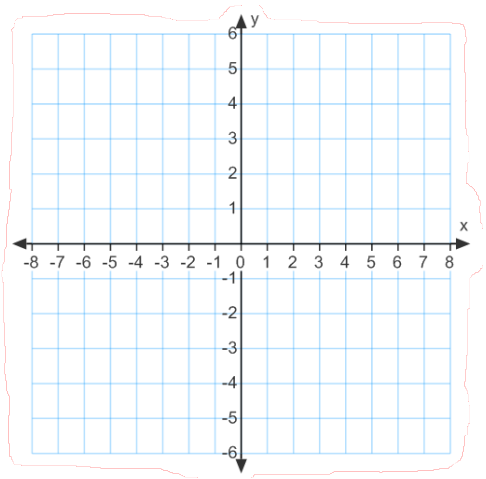
Example 4: Use technology to graph the function $y = \sqrt{f(x)}$ given that $f(x) = x^2 - 4$. Sketch the graph on the grid. State any restrictions on the variable. State the domain and range.



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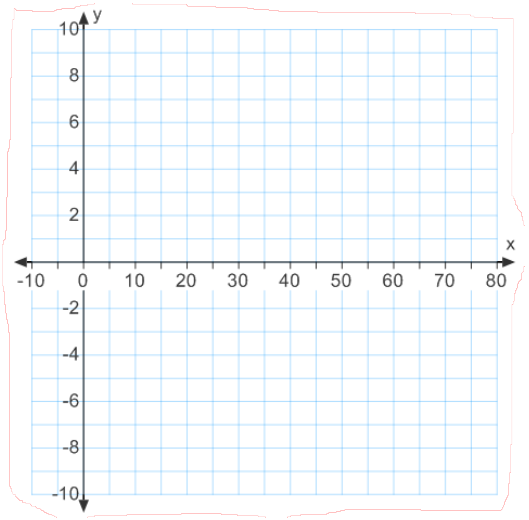
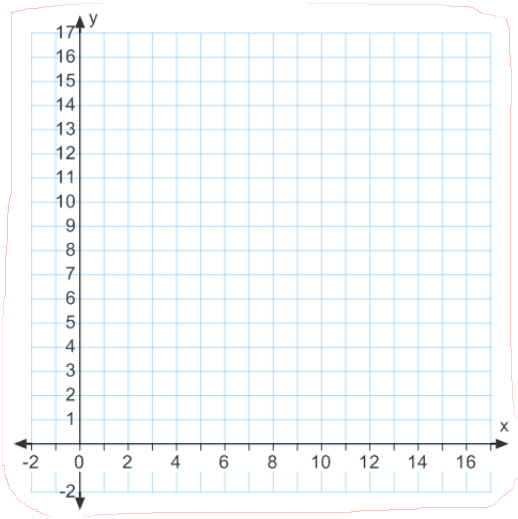
Example 5: Identify any restrictions on the variables. Solve each equation graphically.

$\sqrt{x-1}-5=3$

$\sqrt{6x-5}+10=3$





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Example 6: Create a radical function of the form $y = \sqrt{bx} + k$ with a zero of $x = 8$ that passes through $(2 , -2)$.

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Example 7: The equation $5+\sqrt{2x+3}=2$ has no solution. In terms of transformations, explain why it has no solution.

Can you create another equation with no solution.

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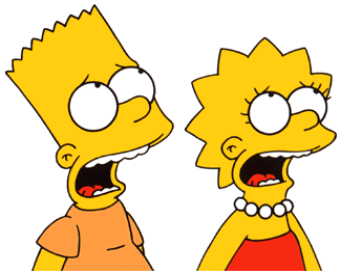
Quiz Time!!

Let's see what we know



Radical Functions Formative Assessment Quiz 1.docx

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Homework

1. 'Radical Functions Mid-Unit Quiz'.

2. Text Pages 99 - 101, Exercises # 1 -16

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Attachments

Translations Assignment 1.doc

Radical Functions Formative Assessment Quiz 1.docx