A1 S2 w12d4 10.5 Graphing Radical Functions

Alg 1 Fri Week 12 Warm Up

1. Skill 18: Solve a Quadratic Equation using the Quadratic Formula: $2x^2 - 5x = 3$

   A) Show answer as simplified radicals.

   B) Show answers rounded to the nearest hundredth.

2. Solve and CHECK:

   a. $\sqrt{x} + 2 = 9$

   b. $\sqrt{10x + 6} = 6$

   c. $\sqrt{x + 10} = \sqrt{6 - x}$

   d. $2x = \sqrt{5x + 6}$

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Notes 10-5: Graphing Radical Functions

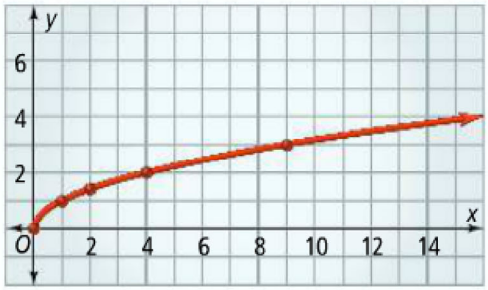
take note

Key Concept Square Root Functions

A **square root function** is a function containing a square root with the independent variable in the radicand. The parent square root function is $y = \sqrt{x}$.

The table and graph below show the parent square root function.

x	y
0	0
1	1
2	1.4
4	2
9	3



Essential Understanding You can graph a square root function by plotting points or using a translation of the parent square root function.

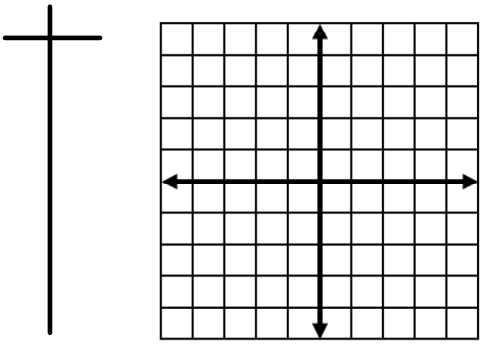
Problem 1 Finding the Domain of a Square Root Function

What is the domain of the function $y = 2\sqrt{3x - 9}$?

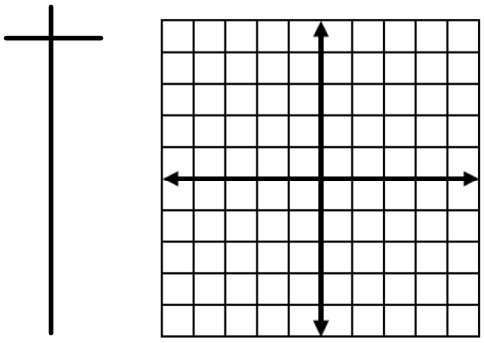
Got It? **1.** What is the domain of $y = \sqrt{-2x + 5}$?

Graph each function:

2. $y = \sqrt{x+4}$



3. $y = \sqrt{x-2}$



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HW p 642: 7, 9, 15, graph 21, 24

Find the domain of each function.

7. $y = \frac{1}{2}\sqrt{x}$

9. $y = \sqrt{x-7}$

15. $y = \sqrt{3(x-4)}$

Make a table of values and graph each function.

21. $y = -3\sqrt{x}$

24. $y = 2\sqrt{x-3}$