

Name: _____ Hour: _____ Date: _____

NOTES: Section 12.1 – Functions Involving Square Roots

Goals: #1 - I can evaluate and graph a function involving square roots.

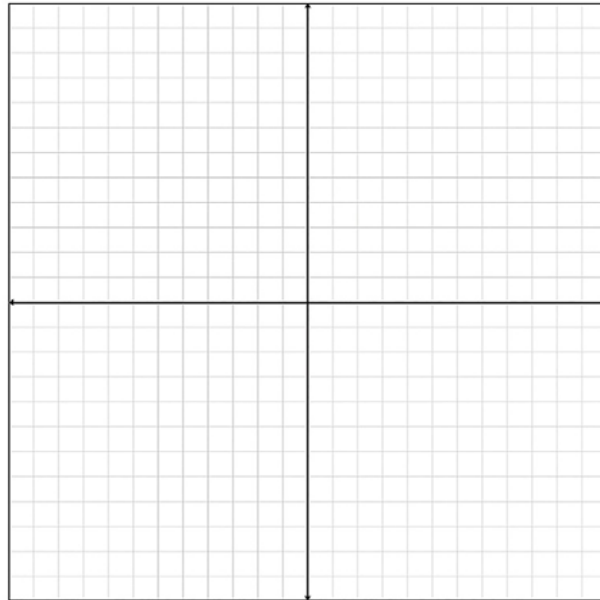


Homework: Section 12.1 Worksheet

Exploration #1: Graph the following function using a table of values.

1. $y = \sqrt{x}$

x	y
-1	
0	
1	
4	
9	



a. Make some observations about your graph:

2. Evaluate the function for the given value of x . Round your answer to the nearest tenth.

a. $y = 3\sqrt{x}$ when $x = 4$

b. $y = \sqrt{x + 2}$ when $x = 9$

c. $y = \sqrt{4x - 1}$ when $x = 21$

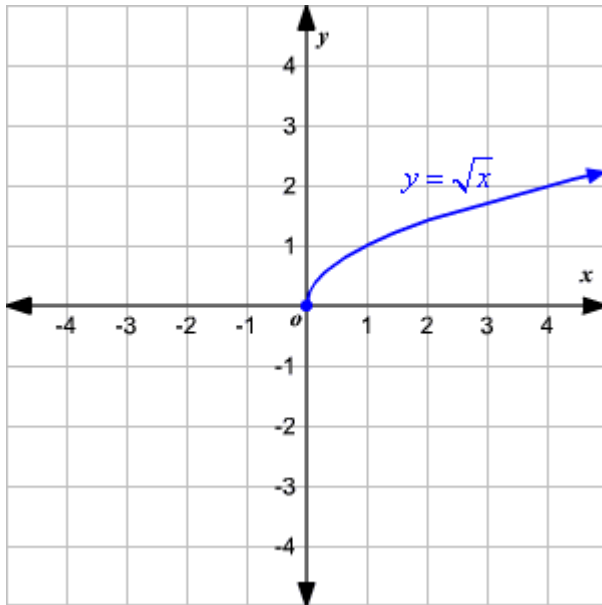
d. $y = \sqrt{x} - 10$ when $x = 3$

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Notes:

A _____ is a function that can be written in the

_____ : $y = \sqrt{x}$



Characteristics of Square Root Functions:

- The domain is: _____ because we cannot take the square root of _____ numbers.
- The range is: _____
- When choosing x -values for our table, we find _____.

Example #1: Find the domain of the function.

1. $y = 5\sqrt{x}$

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

3. $y = \sqrt{4x-1}$

You practice: Find the domain of the function.

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

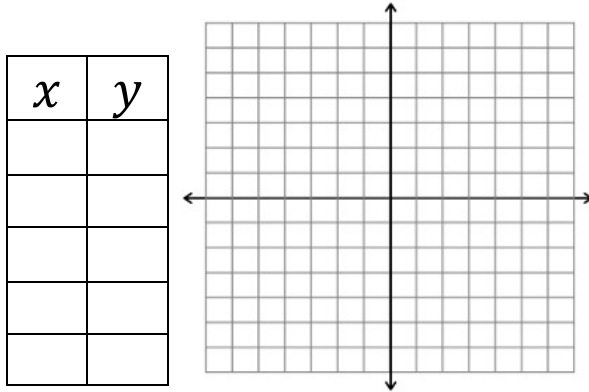
2. $y = \sqrt{3x+2}$

3. $y = \sqrt{5x-3} - 2$

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Example #2: Sketch the graph. Find the domain and range.

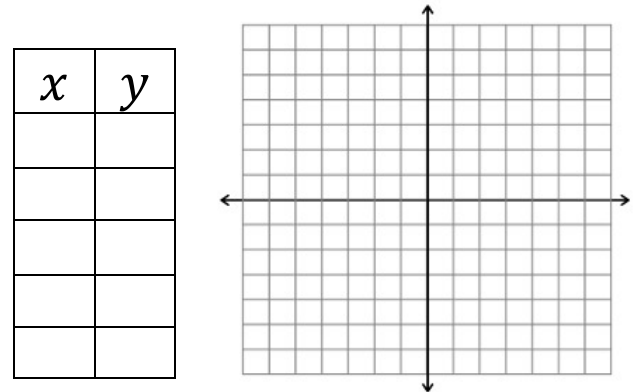
1. $y = \sqrt{x - 3}$



Domain: _____

Range: _____

2. $y = \sqrt{x} + 1$

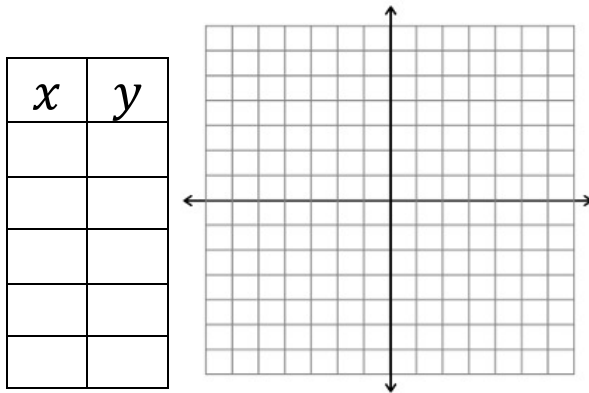


Domain: _____

Range: _____

You practice: Sketch the graph. Find the domain and range.

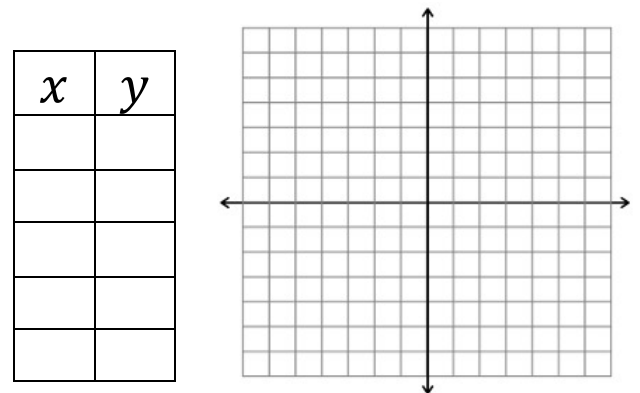
1. $y = \sqrt{x + 5}$



Domain: _____

Range: _____

2. $y = 5\sqrt{x} - 2$



Domain: _____

Range: _____