



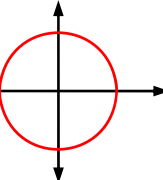
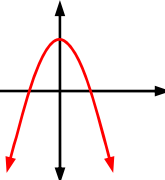
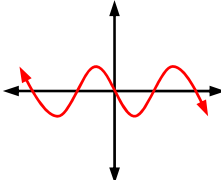
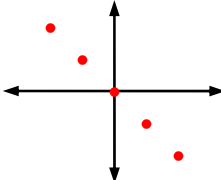
Objective: Graphing Square Root Functions


Homework RX4 – NYA p.640 #1, 2, 4, 5, 10, 11, 17 – 20 (don't draw), 21, 23, 25

Do Now: Simplify

1. $\sqrt{6} \cdot 4\sqrt{7} =$	2. $\frac{15\sqrt{24}}{30\sqrt{3}} =$
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Exam Prep: Which of the following graphs is not a function?

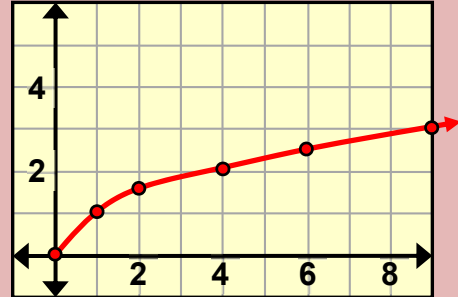
A)  B)  C)  D) 



A short, sweet, and simple concept today if you try to see the connection between equations and their graphs.

A square root function contains a variable in the radicand. When graphing x-values that are not perfect squares, round y-values to the nearest tenth.

x	y
0	0
1	1
2	1.4
4	2
6	2.4
9	3



The function $y = \sqrt{x}$.

Domain: $x \geq 0$.

To find the domain, set the radicand to be ≥ 0 .

Find the Domain

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

$$x + 3 \geq 0$$

$$x \geq -3$$

Domain: $x \geq -3$

Practice Finding the Domain

1. $y = 3\sqrt{2x - 8}$	2. $y = \sqrt{x - 7}$
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Translating Graphs of Square Root Functions

Practice

Vertical	
Up	$y = \sqrt{x} + k$
Down	$y = \sqrt{x} - k$

Horizontal	
Right	$y = \sqrt{x - k}$
Left	$y = \sqrt{x + k}$

$y = \sqrt{x} + 1$	$y = \sqrt{x + 3}$
$y = \sqrt{x}$	$y = \sqrt{x}$
$y = \sqrt{x} - 2$	$y = \sqrt{x - 4}$

