

8-6 Graphing Radical Functions

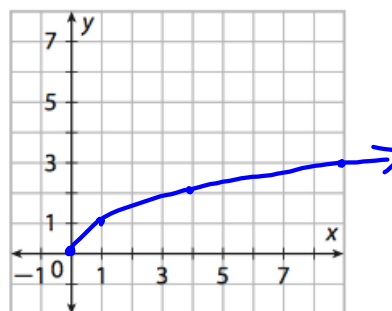
Objectives:

- I can graph square root functions
- I can identify transformations

Mar 12-10:11 PM

Graph the following and state the domain and range

x	$f(x) = \sqrt{x}$
0	0
1	1
4	2
9	3



Domain: $[0, \infty)$

Range: $[0, \infty)$

Mar 12-10:12 PM

Transformation Form

State the transformations

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

stretch right 3
 V-stretch 2 down 2

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

V-flip right 2
 up 1

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

V-flip stretch 3
 right 2
 up 3

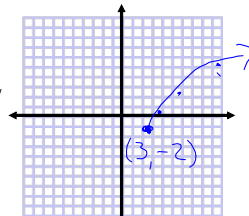
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Graph and state the Domain and Range

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

$$D: [3, \infty)$$

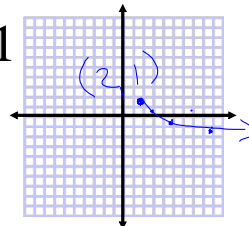
$$R: [-2, \infty)$$



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

$$D: [2, \infty)$$

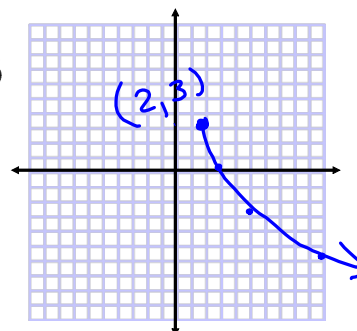
$$R: (-\infty, 1]$$



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

$$D: [2, \infty)$$

$$R: (-\infty, 3]$$



Mar 12-10:19 PM