

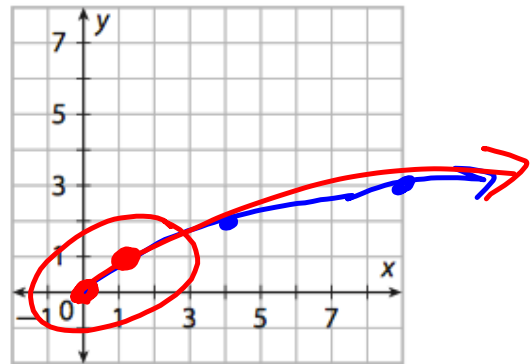
8-6 Graphing Radical Functions

Objectives:

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

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: $[0, \infty)$

Transformation Form

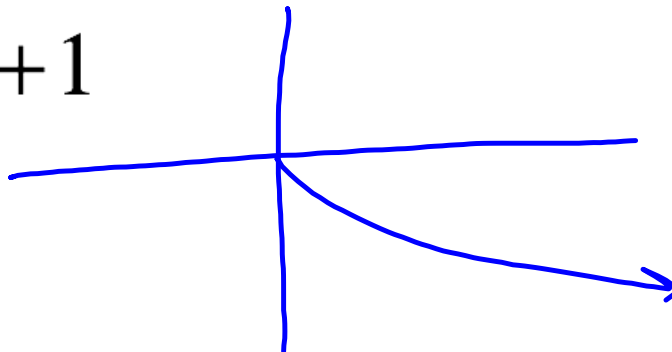
State the transformations

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

- V.S. of 2
- R 3
- Down 2

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

- Reflect
- R 2
- UP 1

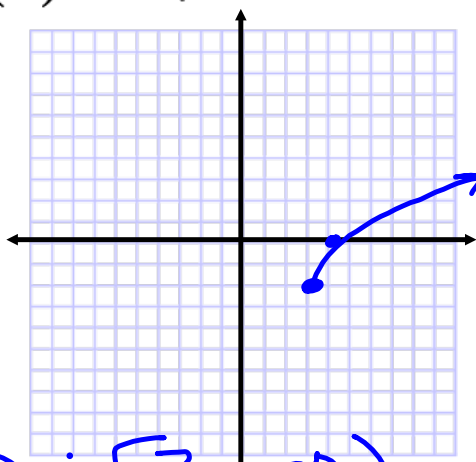


$$h(x) = -3\sqrt{x-2} + 3$$

- Reflect
 - ST 3
 - R 2
 - UP 3
- } V.S. of -3

Graph and state the Domain and Range

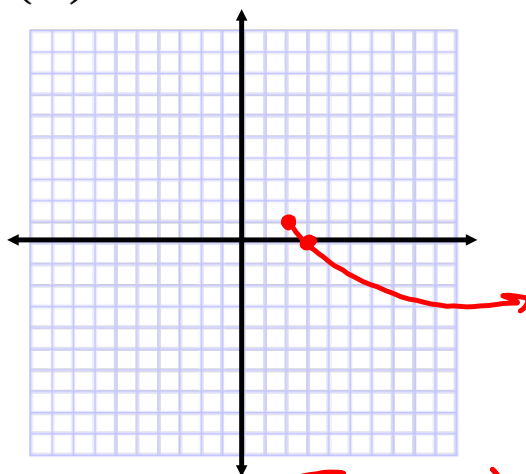
$$g(x) = 2\sqrt{x-3} - 2$$



vs
R 3
D 2

D: $[3, \infty)$
R: $[-2, \infty)$

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

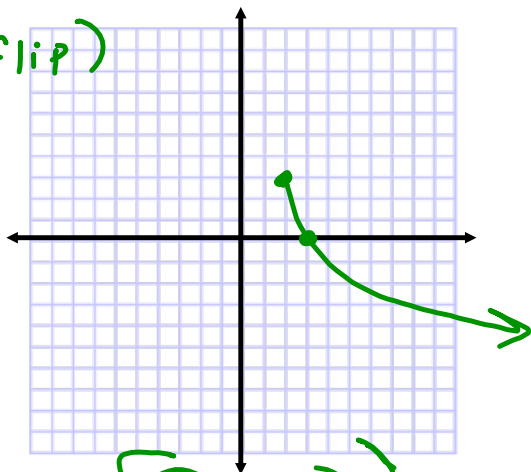


• flip D: $[2, \infty)$
• R 2 R: $(-\infty, 1]$
• UP 1

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

• ST -3 (flip)

• R 2
• UP 3



D: $[2, \infty)$
R: $(-\infty, 3]$