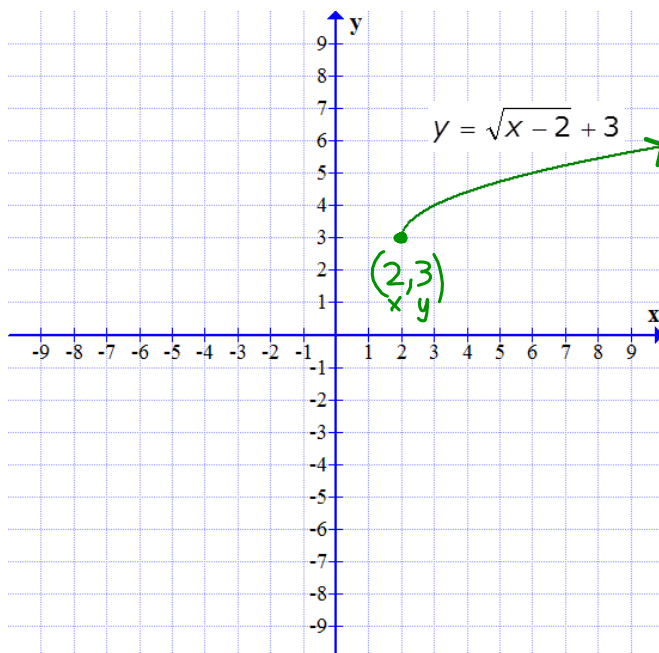


## C.4 - Graphing Radicals - Day 2

**Domain:** "Everything that **x** can be"

**Range:** "Everything that **y** can be"

**Ex1.** Find the domain and range of this graph.



Domain :

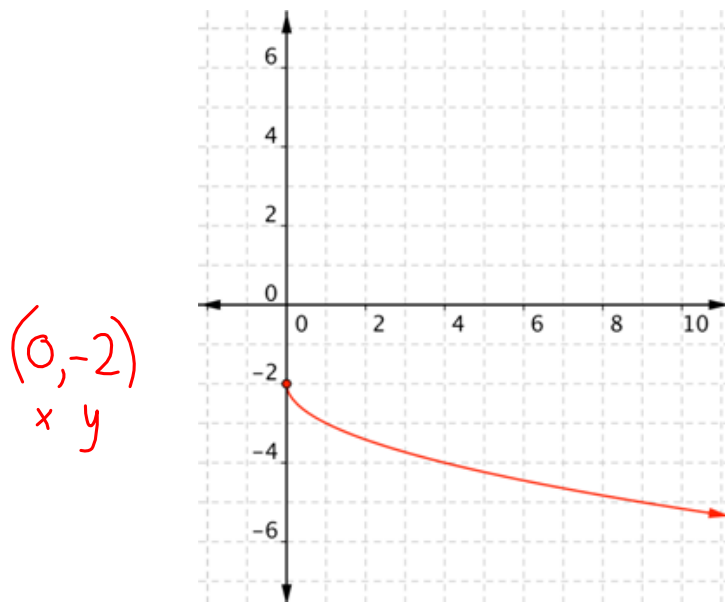
$$x \geq 2$$

Range :

$$y \geq 3$$

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**Ex2.** Find the domain and range of this graph.



Domain :

$$x \geq 0$$

Range :

$$y \leq -2$$

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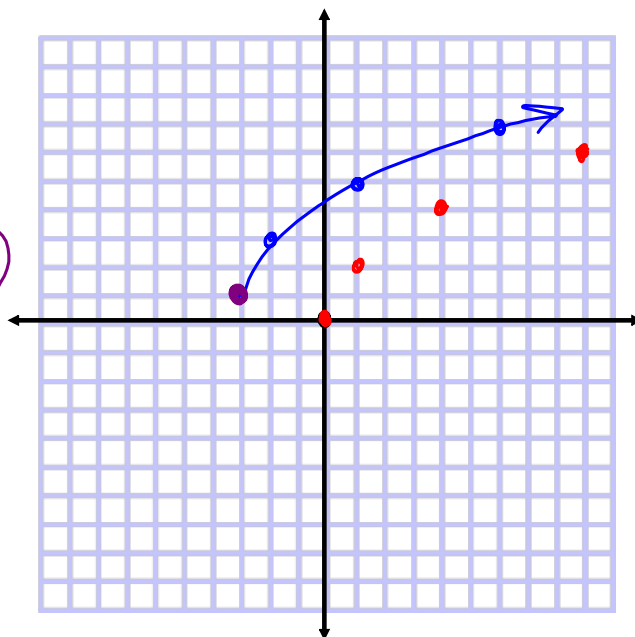
**Ex3.** Graph the following radical function. Describe the transformation from the parent function. Then state the domain and range.

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

Stretch by 2  
left 3, up 1

$(-3, 1)$

$$\begin{array}{l} \underline{D: x \geq -3} \\ \underline{R: y \geq 1} \end{array}$$



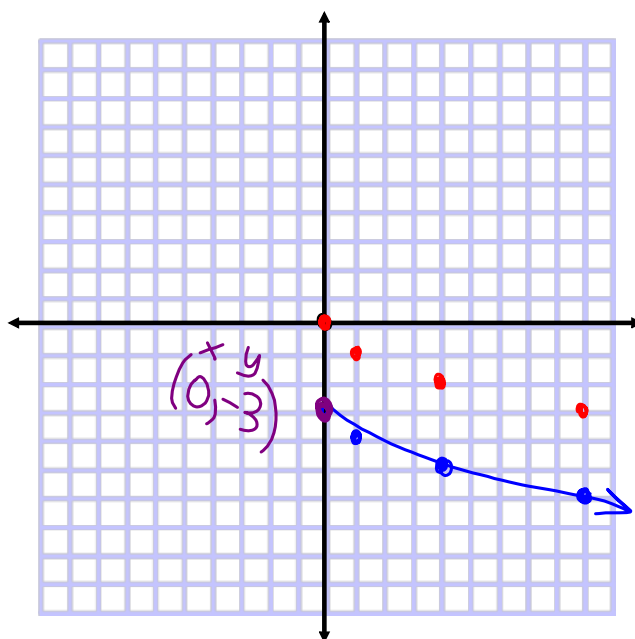
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**Ex4.** Graph the following radical function. Describe the transformation from the parent function. Then state the domain and range.

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

Reflect over x-axis,  
down 3

$$\begin{array}{l} \underline{D: x \geq 0} \\ \underline{R: y \leq -3} \end{array}$$



Mar 5-3:30 PM