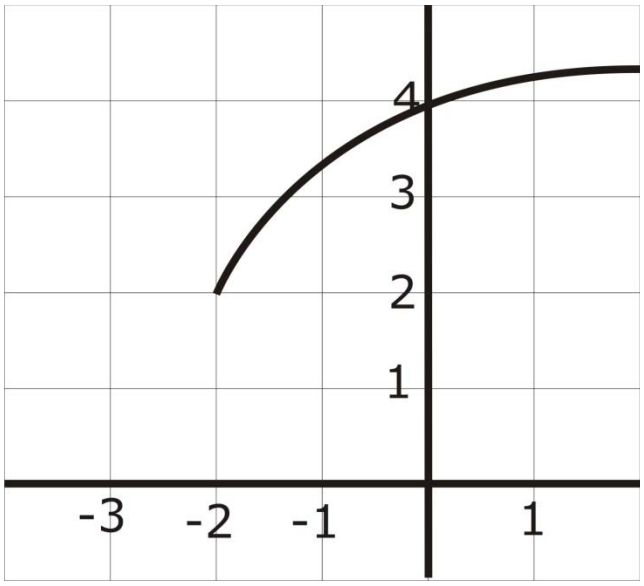
Name _____ Date _____

## Graphing Square and Cube Roots - Step-by-Step Lesson

What is the equation of the square root function in the graph below?




**Explanation:**

**We know that we have a graph of a square root function.**

Equations of standard square root functions follow the form of: $y = \sqrt{x}$

**Let's see what we can tell from the graph:**

The graph starts at point (-2, 2).

We can also see that the graph clearly hits the y-intercept at (0, 4).

Based on this:

$y = \pm\sqrt{x-h} + k$ is the inverse of $y = (x - h)^2 + k$

[vertex is at (h,k)]

$Y = \sqrt{x+2} + 2$

If we plug our two points (-2, 2) and (0,4) in there we will see the equation works.

Answer is: $y = \sqrt{x+2} + 2$