

$$(2) \cdot (2) = \underline{4}$$

$$(-2) \cdot (-2) = \underline{4}$$

$$(3) \cdot (3) = \underline{9}$$

$$(-3) \cdot (-3) = \underline{9}$$

So, opposite of square

$$\sqrt{4} = \underline{2} \text{ and } \underline{-2}$$

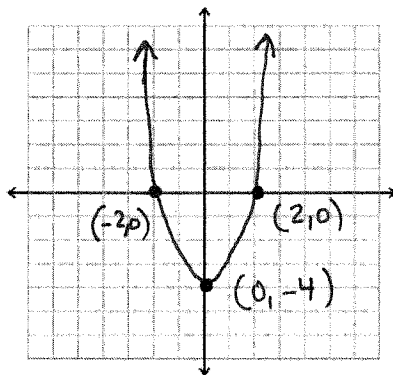
$$\sqrt{9} = \underline{3} \text{ and } \underline{-3}$$

$$\sqrt{-16} = \text{~~and~~}$$

No Solution

Graph the following equation and identify the solutions.

$$y = x^2 - 4 \quad b = 0$$



What are the solutions? \rightarrow x-intercept

$$x = \underline{2} \text{ and } x = \underline{-2}$$

What is the y-value of the zeros/solutions?

Zero (0)

Since the y value of the solutions is 0 we can substitute y for 0 into the equation and solve for x.

Let's solve $y = x^2 - 4$ without graphing.

$$\begin{array}{r} 0 = x^2 - 4 \\ +4 \quad +4 \\ \hline 4 = x^2 \end{array}$$

$$x = \sqrt{4} \quad \left\{ \begin{array}{l} x = 2 \\ x = -2 \end{array} \right.$$

Whenever you take the square root of a value, you get 2 answers. One positive and one negative unless $\sqrt{0} = 0$ (one solution)