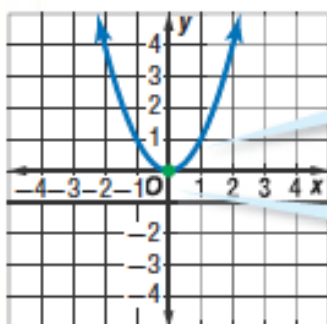


About Quadratic Functions

The graph of a **quadratic function** is a **parabola**. A parabola is a U-shaped graph that has either a **maximum** (highest point) or **minimum** (lowest point). The places where a parabola crosses the x -axis are the zeros, or solutions, of its related quadratic function.

One Solution

The graph shows the quadratic function $y = x^2$. There is one solution.

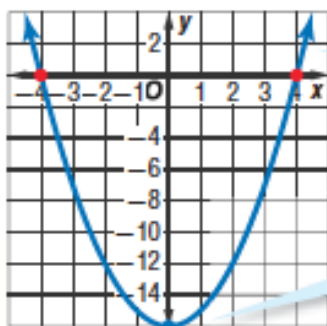


There is 1 solution, or zero, $x = 0$.

The minimum value of 0 occurs at $x = 0$.

Two Solutions

The graph shows the quadratic function $y = x^2 - 16$. There are two solutions.

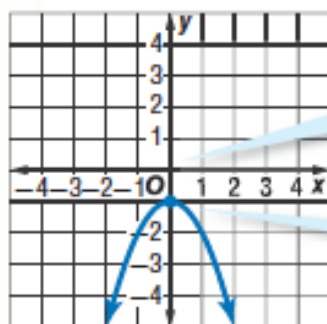


There are 2 solutions, or zeros, $x = -4$ and $x = 4$.

The minimum value of -16 occurs at $x = 0$.

No Solutions

The graph shows the quadratic function $y = -x^2 - 1$. There are no solutions.



There are 0 solutions, or zeros.

The maximum value of -1 occurs at $x = 0$.