

**Example 5.**  
**Graph the following quadratic function.**

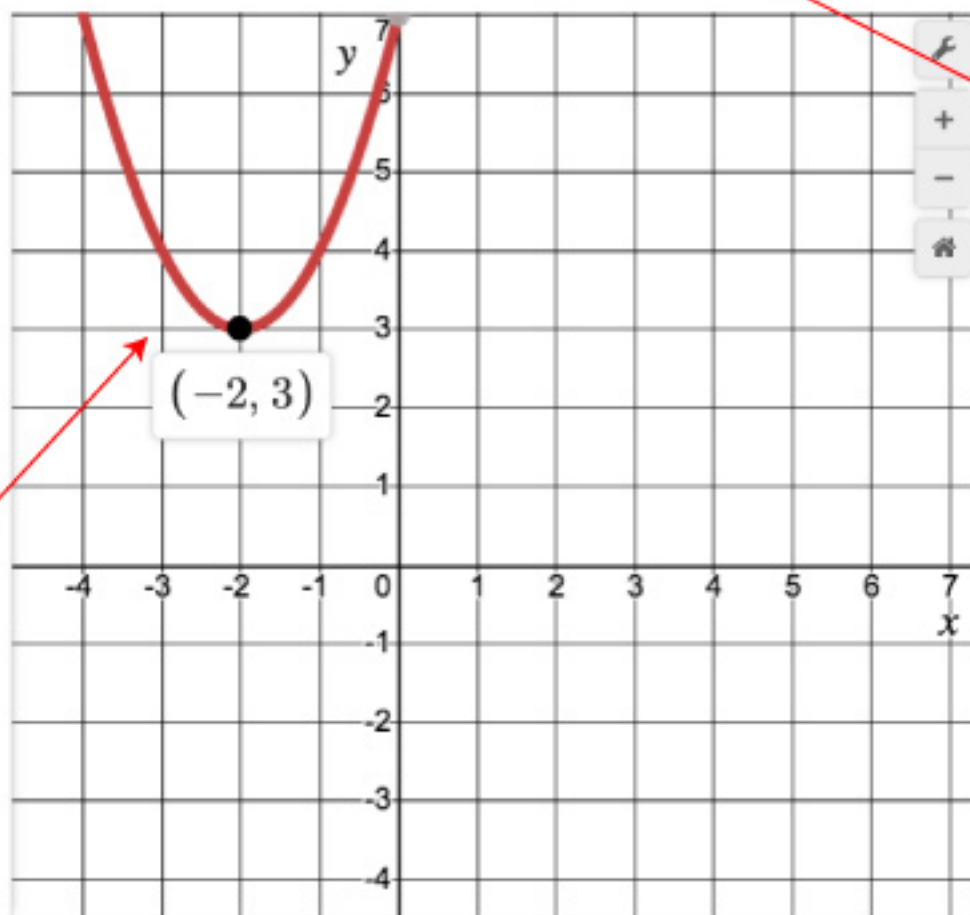
$$y = (x + 2)^2 + 3$$

**Solution.**

Quadratic in vertex form:

$$y = a(x - h)^2 + k$$

Because in this equation  $a > 0$ , the graph of the parabola opens up.



The coordinates of the vertex align with the values shown in the equation.  
Note: The "+ 2" is the same as "- (-2)".