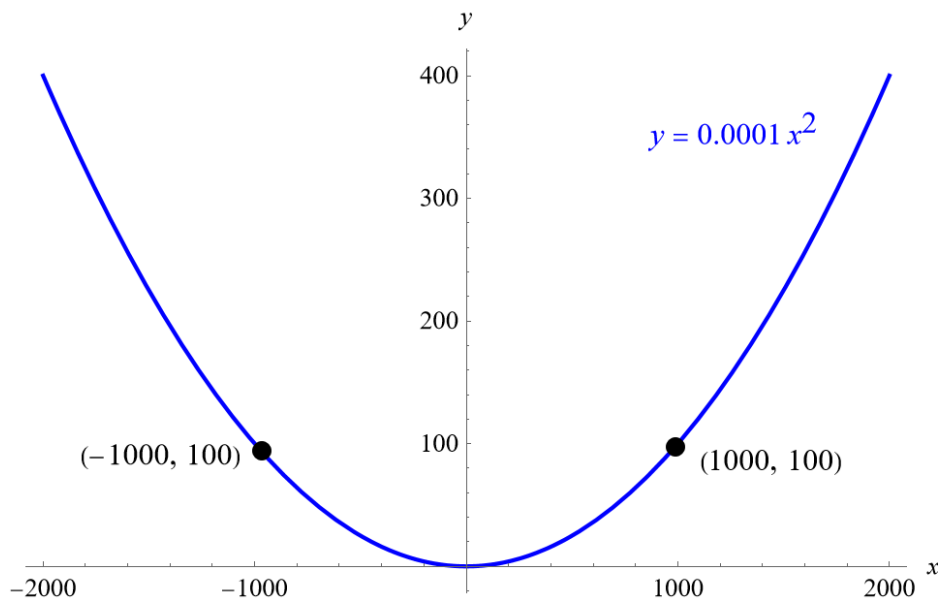


Exercise 74

A suspension bridge can be modeled by the quadratic function $h(x) = .0001x^2$ with $-2000 \leq x \leq 2000$ where $|x|$ is the number of feet from the center and $h(x)$ is height in feet. Use the TRACE feature of your calculator to estimate how far from the center does the bridge have a height of 100 feet.

Solution



The x -coordinates corresponding to $y = 100$ are -1000 and 1000 , so 1000 feet from the center the bridge has a height of 100 feet.