

Name _____

The Mystery of Limits: Unlocking the Secrets of Calculus

Short Answer Key

1. Getting as close as possible to a certain value without reaching it.
2. $\lim_{x \rightarrow 3} f(x) = 9$, as x approaches 3 in the function $f(x) = x^2$.
3. The behavior of the function becomes unbounded as the input approaches a specific value.
4. They allow us to calculate instantaneous rates of change in physics and analyze trends in economics.
5. As x approaches 0, the values of $g(x)$ become larger and larger, approaching positive infinity from the right side and becoming smaller and smaller, approaching negative infinity from the left side.

