Limits and Continuity

Madiba Hudson-Quansah

Contents

Chapter 1

- A function's limit can be one of it's own outputs. When this happens the function called a continuous function.
- A Limit of a function is not necessarily one of the function's output values.
- A Limit of a function can be one of the function values.

$$\lim_{x \to a} f(x) = f(a)$$

If a limit can be found at $x = a$ then we can say this function is continuous as $x = a$

This means for a function to be continuous at $x = a$

- $f(a)$ must exist
- $\lim_{x \to a} f(x)$ must exist
- $\lim_{x \to a} f(x) = f(a)$