Finding the Limit of a Quotient

\[ \lim_{x \to a} \frac{f(x)}{g(x)} \]

Suppose that \( \lim_{x \to a} f(x) = L \) and \( \lim_{x \to a} g(x) = K \), where \( K \neq 0 \).

3 CASES

- **\( K \neq 0 \)**
  - The answer is simply \( \frac{L}{K} \).

- **\( K = 0 \); \ L \neq 0 \**
  - The answer is not existent.

- **\( K = 0 \); \ L = 0 \**
  - This gives the Indeterminate Form \( \frac{0}{0} \).
  - Depending on the situation, the answer can be anything!!