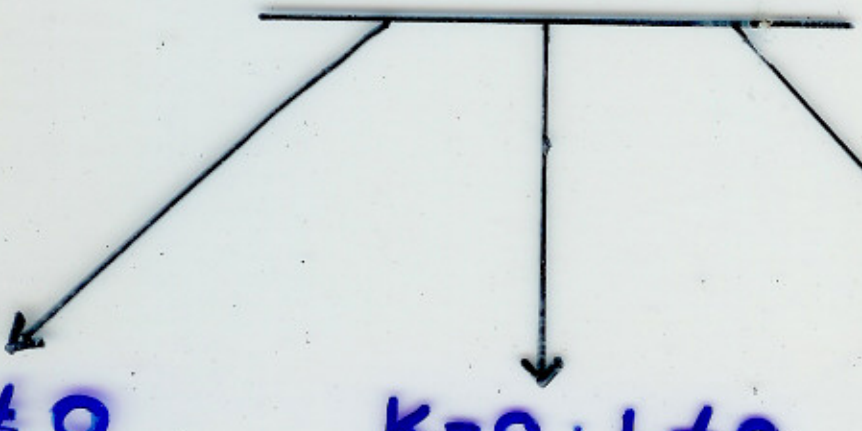
Finding the limit of a QUOTIENT

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

Suppose that $\lim_{x \to a} f(x) = L$ & $\lim_{x \to a} g(x) = K$

3 CASES



$K \neq 0$

The answer is simply

$$\frac{L}{K}$$

$K = 0$; $L \neq 0$

The answer is

limit does not exist

$K = 0$; $L = 0$

This gives the Indeterminate Form $\frac{0}{0}$

Depending on the situation answer can be anything !!