

$$F'(x) = f'(x)(b-a) - (f(b) - f(a)) \quad (5)$$

$$0 = F'(c) = f'(c)(b-a) - (f(b) - f(a))$$

$$f(b) - f(a) = f'(c)(b-a)$$

e.v.D.

ROLLE \Rightarrow LAGRANGE
 \Leftarrow

TEOR. CAUCHY

- 1) f, g CONT. $[a, b]$
- 2) f, g DER. $]a, b[$
- 3) $\forall x \in]a, b[, g'(x) \neq 0$

$$\Rightarrow \left[\begin{array}{l} \exists c \in]a, b[\\ \frac{f(b) - f(a)}{g(b) - g(a)} \\ = \frac{f'(c)}{g'(c)} \end{array} \right]$$

R \Rightarrow e
 \Uparrow
L \Leftarrow