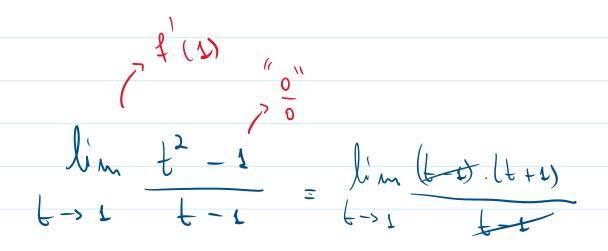
Derivadas



$$=\lim_{t\to 1} t+1=2$$

$$f(t) = t^2$$

A derivada de f em P=1 é igual a 2!!!

Définição: Dizemos que uma função

f:ICIR->IR é derivavel em PEI se

o limite
$$\lim_{t\to p} \frac{f(t) - f(p)}{t-p}$$
 existing

Nesse caso, denotamos:

$$\frac{f(P)}{f(P)} = \lim_{t \to P} \frac{f(t) - f(P)}{t - P}$$

$$\frac{df(P)}{dt} \xrightarrow{\text{heibniz}}$$

$$f'(2) = \lim_{t \to 2} \frac{t^2 - 4}{t - 2} = \lim_{t \to 2} \frac{t}{(t+2)}$$

$$= \lim_{t \to 2} t + 2 = 4$$

$$f'(t) = \lim_{s \to t} \frac{s^2 - t^2}{s - t}$$

$$\rightarrow$$
 $f(t) = e^{t}$

$$f'(0) = \lim_{\Delta \to 0} \frac{e^{\Delta} - e^{0}}{\Delta \to 0}$$

$$=\lim_{\delta\to0}\frac{e^{\delta}-1}{\delta}$$

$$\Rightarrow f(t) = e^{t} = f(t) = e^{t}$$

$$= \sum_{x \in x \in \mathcal{C}(x, 0)} f(t) = e^{t}$$

$$f'(s) = \lim_{N \to 1} \left(\sqrt{N} - \sqrt{1} \right) \cdot \left(\sqrt{N} + 1 \right)$$

$$= \lim_{N \to 1} \frac{1}{(N + 1)} = \frac{1}{2}$$

$$\Rightarrow f(t) = \sqrt{t} \Rightarrow f'(t) = \frac{1}{2\sqrt{t}}$$

$$\Rightarrow \text{Exercício}!$$

$$\text{Obs.: Se } f: \text{ICIR} \to \text{IR } \text{ θ derivated}$$

$$\text{em } \text{cada } \text{Powto } \text{ $t \in \mathbb{I}$, $Po demos } \text{ definition } \text{for } \text{a } \text{função } \text{ derivada } \text{ $f': \mathbb{I} \subset \mathbb{R} \to \mathbb{R}$.}$$

$$\text{dada } \text{Por: } \text{ $f'(t) = \lim_{N \to 1} \frac{f(s) - f(t)}{N - t}}.$$