TE203 – Fundamentos Matemáticos para Engenharia Elétrica I 2016/2
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Formulário – Prova 1

$$\frac{df(x)}{dt} = \lim_{h \to 0} \frac{f(x+h) - f(x)}{h}$$

$$\frac{d}{dx}[f(x)g(x)] = f(x)g'(x) + g(x)f'(x)$$

$$\frac{d}{dx}\left[\frac{f(x)}{g(x)}\right] = \frac{g(x)f'(x) - f(x)g'(x)}{[g(x)]^2}$$

$$\frac{dy}{dx} = \frac{dy}{du}\frac{du}{dx}$$

$$\frac{d}{dx} f(g(x)) = f'(g(x))\, g'(x)$$

$$\frac{du^n}{dx} = n u^{n-1} \frac{du}{dx}$$

$$\frac{dc}{dx} = 0$$

$$\frac{dx^n}{dx} = n x^{n-1}$$

$$\frac{da^x}{dx} = a^x \ln a$$

$$\frac{d}{dx} \log_a x = \frac{1}{x \ln a}$$

$$\frac{d}{dx} \ln g(x) = \frac{g'(x)}{g(x)}$$

$$\frac{d}{dx} \operatorname{sen} x = \cos x$$

$$\frac{d}{dx} \cos x = -\operatorname{sen} x$$

$$\frac{d}{dx} \tan x = \sec^2 x$$

$$\frac{d}{dx} \csc x = -\csc x \cot x$$

$$\frac{d}{dx} \sec x = \sec x \tan x$$

$$\frac{d}{dx} \cot x = -\csc^2 x$$