

Pravidla pro derivování

- $(c)' = c' = 0,$
- $(x^n)' = nx^{n-1}$ $\text{pro } \forall x \in \mathbb{R}, \text{ pro } \forall n \in \mathbb{R},$
- $(e^x)' = e^x$ $\text{pro } \forall x \in \mathbb{R},$
- $(a^x)' = a^x \ln a$ $\text{pro } \forall x \in \mathbb{R}, \text{ pro } \forall a \in \mathbb{R}, a > 0, a \neq 1,$
- $(\ln |x|)' = \frac{1}{x}$ $\text{pro } \forall x \in \mathbb{R}, x \neq 0,$
- $(\log_a |x|)' = \frac{1}{x \cdot \ln a}$ $\text{pro } \forall x \in \mathbb{R}, x \neq 0, \text{ pro } \forall a \in \mathbb{R}, a > 0, a \neq 1,$
- $(\sin x)' = \cos x$ $\text{pro } \forall x \in \mathbb{R},$
- $(\cos x)' = -\sin x$ $\text{pro } \forall x \in \mathbb{R},$
- $(\text{tg } x)' = \frac{1}{\cos^2 x}$ $\text{pro } \forall x \in \mathbb{R}, x \neq (2k+1)\pi/2,$
- $(\text{cotg } x)' = -\frac{1}{\sin^2 x}$ $\text{pro } \forall x \in \mathbb{R}, x \neq k\pi,$
- $(\arcsin x)' = \frac{1}{\sqrt{1-x^2}}$ $\text{pro } \forall x \in (-1,1),$
- $(\arccos x)' = \frac{-1}{\sqrt{1-x^2}}$ $\text{pro } \forall x \in (-1,1),$
- $(\text{arc tg } x)' = \frac{1}{1+x^2}$ $\text{pro } \forall x \in \mathbb{R},$
- $(\text{arc cotg } x)' = \frac{-1}{1+x^2}$ $\text{pro } \forall x \in \mathbb{R},$
- $(f+g)' = f' + g'$
- $(f-g)' = f' - g'$
- $(f \cdot g)' = f' \cdot g + f \cdot g'$
- $(c \cdot f)' = c \cdot f'$
- $\left(\frac{f}{g}\right)' = \frac{f' \cdot g - f \cdot g'}{g^2}$
- $[f(g(x))]' = f'(g(x)) \cdot g'(x).$