

Derivácia funkcie

$$y = f(x) \quad y' = \lim_{h \rightarrow 0} \frac{f(x+h) - f(x)}{h}$$

$$y = c \quad y' = 0$$

$$y = x^n \quad y' = n \cdot x^{n-1}$$

$$y = x^x \quad y' = x^x (\ln x + 1)$$

$$y = e^x \quad y' = e^x$$

$$y = e^{-x} \quad y' = -e^{-x}$$

$$y = a^x \quad y' = a^x \cdot \ln a$$

$$y = \ln x \quad y' = \frac{1}{x}$$

$$y = \log_a x \quad y' = \frac{1}{x \cdot \ln a}$$

$$y = \sin x \quad y' = \cos x$$

$$y = \cos x \quad y' = -\sin x$$

$$y = \operatorname{tg} x \quad y' = \frac{1}{\cos^2 x}$$

$$y = \operatorname{cot} gx \quad y' = -\frac{1}{\sin^2 x}$$

$$y = \arcsin x \quad y' = \frac{1}{\sqrt{1-x^2}}$$

$$y = \arccos x \quad y' = -\frac{1}{\sqrt{1-x^2}}$$

$$y = \operatorname{arctg} \quad y' = \frac{1}{1+x^2}$$

$$y = \operatorname{arc} \operatorname{cot} gx \quad y' = -\frac{1}{1+x^2}$$

$$y = u \cdot v \quad y' = u' \cdot v + u \cdot v'$$

$$y = \frac{u}{v} \quad y' = \frac{u' \cdot v - u \cdot v'}{v^2}$$

$$y = f[\varphi(x)] \quad y' = f'[\varphi(x)] \cdot \varphi'(x)$$