

## Derivácie

$$\begin{aligned}(k)' &= 0 & (x^n)' &= nx^{n-1} & (\arcsin x)' &= \frac{1}{\sqrt{1-x^2}} \\ (\ln x)' &= \frac{1}{x} & (\log_a x)' &= \frac{1}{x \ln a} & (\arccos x)' &= -\frac{1}{\sqrt{1-x^2}} \\ (e^x)' &= e^x & (a^x)' &= a^x \ln a \\ (\sin x)' &= \cos x & (\operatorname{arc cot} g x)' &= -\frac{1}{x^2+1} \\ (\cos x)' &= -\sin x \\ (tg x)' &= \frac{1}{\cos^2 x} & (\cot g x)' &= -\frac{1}{\sin^2 x} & (\operatorname{arctg} x)' &= \frac{1}{x^2+1} \\ (k.u)' &= k.u' & (u.v)' &= u'v + uv' & \left(\frac{u}{v}\right)' &= \frac{u'v - uv'}{v^2} \\ (u \pm v)' &= u' \pm v'\end{aligned}$$

## Integrály

$$\begin{aligned}\int 1 dx &= x + C & \int 0 dx &= C & \int \frac{1}{\sin^2 x} dx &= -\cot gx + C \\ \int x^n dx &= \frac{x^{n+1}}{n+1} + C & \int \frac{1}{\sqrt{1-x^2}} dx &= \begin{cases} \arcsin x + C \\ -\arccos x + C \end{cases} \\ \int \frac{1}{x} dx &= \ln|x| + C & \int \frac{1}{1+x^2} dx &= \begin{cases} \operatorname{arctg} x + C \\ -\operatorname{arc cot} gx + C \end{cases} \\ \int e^x dx &= e^x + C & \int \frac{1}{a^2+x^2} dx &= \frac{1}{a} \operatorname{arctg} \frac{x}{a} + C \\ \int a^x dx &= \frac{a^x}{\ln a} + C & \int \frac{1}{\sqrt{a^2-x^2}} dx &= \arcsin \frac{x}{a} + C \\ \int \sin x dx &= -\cos x + C & \int \frac{f'(x)}{f(x)} dx &= \ln|f(x)| + C \\ \int \cos x dx &= \sin x + C \\ \int \frac{1}{\cos^2 x} dx &= \operatorname{tg} x + C\end{aligned}$$

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doučovanie a prípravné kurzy na prijímačky a skúšky na VŠ