Přehled vzorců

$(k)' = 0$

$(x^n)' = nx^{n-1}$

$(\sin x)' = \cos x$

$(\cos x)' = -\sin x$

$(\mathrm{tg} x)' = \dfrac{1}{\cos^2 x}$

$(\mathrm{cotg} x)' = -\dfrac{1}{\sin^2 x}$

$(\log_a x)' = \dfrac{1}{x \ln a}$

$(\ln x)' = \dfrac{1}{x}$

$(a^x)' = a^x \ln a$

$(e^x)' = e^x$

$(\mathrm{arctg} x)' = \dfrac{1}{1+x^2}$

$(\mathrm{arccotg} x)' = -\dfrac{1}{1+x^2}$

$(\arcsin x)' = \dfrac{1}{\sqrt{1-x^2}}$

$(\arccos x)' = -\dfrac{1}{\sqrt{1-x^2}}$

$(f \cdot g)'(a) = f'(a) \cdot g(a) + f(a) \cdot g'(a)$

$\left(\dfrac{f}{g}\right)'(a) = \dfrac{f'(a) \cdot g(a) - f(a) \cdot g'(a)}{g^2(a)}$

$(f \circ g)'(a) = f'(g(a)) \cdot g'(a)$

$\left(f^{-1}(b)\right)' = \dfrac{1}{f'(a)}$

$\int k \, \mathrm{d}x = kx + c$

$\int x^n \, \mathrm{d}x = \dfrac{x^{n+1}}{n+1} + c$

$\int \dfrac{\mathrm{d}x}{x} = \ln|x| + c$

$\int \cos x \, \mathrm{d}x = \sin x + c$

$\int \sin x \, \mathrm{d}x = -\cos x + c$

$\int \mathrm{tg} x \, \mathrm{d}x = -\ln|\cos x| + c$

$\int \mathrm{cotg} x \, \mathrm{d}x = \ln|\sin x| + c$

$\int \ln x \, \mathrm{d}x = x(\ln x - 1) + c$

$\int a^x \, \mathrm{d}x = \dfrac{a^x}{\ln a} + c$

$\int e^x \, \mathrm{d}x = e^x + c$

$\int \dfrac{\mathrm{d}x}{1+x^2} = \mathrm{arctg} x + c$

$\int u'(x) \cdot v(x) \mathrm{d}x = u(x) \cdot v(x) - \int u(x) \cdot v'(x) \mathrm{d}x$

$\int f(g(x)) \cdot g'(x) \, \mathrm{d}x = \int f(t) \, \mathrm{d}t$

$\int_a^b u'(x) \cdot v(x) \, \mathrm{d}x = [u(x) \cdot v(x)]_a^b - \int_a^b u(x) \cdot v'(x) \, \mathrm{d}x$

$\int_a^b f(g(x)) \cdot g'(x) \, \mathrm{d}x = \int_{g(a)}^{g(b)} f(t) \, \mathrm{d}t$

$S = \int_a^b [f(x) - g(x)] \, \mathrm{d}x$

$V = \pi \int_a^b f^2(x) \, \mathrm{d}x$

	0	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{\pi}{2}$	π	$\frac{3}{2}\pi$	2π
	$0°$	$30°$	$45°$	$60°$	$90°$	$180°$	$270°$	$360°$
$\sin x$	0	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	1	0	-1	0
$\cos x$	1	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{1}{2}$	0	-1	0	1
$\mathrm{tg}x$	0	$\frac{\sqrt{3}}{3}$	1	$\sqrt{3}$	x	0	x	0
$\mathrm{cotg}x$	x	$\sqrt{3}$	1	$\frac{\sqrt{3}}{3}$	0	x	0	x

$\sin^2 x + \cos^2 x = 1$

$\sin 2x = 2 \sin x \cos x$

$\cos 2x = \cos^2 x - \sin^2 x$

$\mathrm{tg}x \cdot \mathrm{cotg}x = 1$

$\mathrm{tg}x = \frac{\sin x}{\cos x} = \frac{1}{\mathrm{cotg}x}$

$\log_a r = s \Leftrightarrow a^s = r$

$\log_a r^n = n \cdot \log_a r$

$\log_a(r \cdot s) = \log_a r + \log_a s$

$\log_a \left(\frac{r}{s}\right) = \log_a r - \log_a s$

$\log_a a = 1$