Prehľad vzorcov integrálneho počtu

Funkcia $f : y = f(x)$	Vzorec pre neurčitý integrál $\int f(x)dx = F(x) + c$	Podmienky platnosti vzorca $(x \in D(f))$
$y = 0$	$\int 0\, dx = c \ (c \in R)$	$x \in (-\infty; +\infty)$
$y = 1$	$\int dx = x + c$	$x \in (-\infty; +\infty)$
$y = x^n,\ n \in \mathrm{N}$	$\int x^n dx = \frac{x^{n+1}}{n+1} + c$	$x \in (-\infty; +\infty)$
$y = \frac{1}{x}$	$\int \frac{1}{x} dx = \ln\lvert x\rvert + c$	$x \in (-\infty; 0) \cup (0; \infty)$
$y = e^x$	$\int e^x dx = e^x + c$	$x \in (-\infty; +\infty)$
$y = a^x \ (a > 0, a \neq 1)$	$\int a^x dx = \frac{a^x}{\ln a} + c$	$x \in (-\infty; +\infty)$
$y = \sin x$	$\int \sin x dx = -\cos x + c$	$x \in (-\infty; +\infty)$
$y = \cos x$	$\int \cos x dx = \sin x + c$	$x \in (-\infty; +\infty)$
$y = tg\ x$	$\int tg\ x\ dx = -\ln\lvert \cos x \rvert + c$	$\cos x \neq 0,\quad x \neq \frac{\pi}{2} + k\pi,\ k\ celé$
$y = cotg\ x$	$\int cotg\ x\ dx = \ln\lvert \sin x \rvert + c$	$\sin x \neq 0,\quad x \neq k\pi,\ k\ celé$
$y = \frac{1}{\cos^2 x}$	$\int \frac{1}{\cos^2 x} dx = tgx + c$	$x \in \bigcup_{k \in Z} \left((2k-1)\frac{\pi}{2}; (2k+1)\frac{\pi}{2} \right)$
$y = \frac{1}{\sin^2 x}$	$\int \frac{1}{\sin^2 x} dx = -\cot gx + c$	$x \in \bigcup_{k \in Z} (kx, (k+1)\pi)$
$y = \frac{1}{\sqrt{1-x^2}}$	$\int \frac{1}{\sqrt{1-x^2}} dx = \arccos x + c$	$x \in (-1,1)$
$y = -\frac{1}{\sqrt{1-x^2}}$	$\int -\frac{1}{\sqrt{1-x^2}} dx = \arcsin x + c$	$x \in (-1,1)$
$y = \frac{1}{1+x^2}$	$\int \frac{1}{1+x^2} dx = arctgx + c$	$x \in (-\infty; +\infty)$
$y = -\frac{1}{1+x^2}$	$\int -\frac{1}{1+x^2} dx = arcctgx + c$	$x \in (-\infty; +\infty)$

$$\int af(x)dx = a\int f(x)dx$$

$$\int \frac{f'(x)}{f(x)} dx = \ln\lvert f(x)\rvert + c$$

$$\int [f(x) \pm g(x)]dx = \int f(x)dx \pm \int g(x)dx$$

$$\int f(x)dx = \int f[\varphi(t)]\varphi'(t)dt + c$$

$$\int u'vdx = uv - \int uv'dx$$

$$\int \frac{1}{x^2 + px + q} dx = \frac{1}{\sqrt{q - \left(\frac{p}{2}\right)^2}}\, atrctg\, \frac{x + \frac{p}{2}}{\sqrt{q - \left(\frac{p}{2}\right)^2}} + c$$