Vzorce pro integrování

$$\int 0\,\mathrm{d}x = c, \qquad \int 1\,\mathrm{d}x = x + c,$$

$$\int x^a\,\mathrm{d}x = \frac{x^{a+1}}{a+1} + c \qquad \text{pro } a \neq -1$$

$$\int \frac{1}{x}\,\mathrm{d}x = \ln|x| + c,$$

$$\int \mathrm{e}^x\,\mathrm{d}x = \mathrm{e}^x + c, \qquad \int a^x\,\mathrm{d}x = \frac{a^x}{\ln a} + c,$$

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

$$\int \frac{1}{\cos^2 x}\,\mathrm{d}x = \mathrm{tg}\,x + c, \qquad \int \frac{1}{\sin^2 x}\,\mathrm{d}x = -\mathrm{cotg}\,x + c,$$

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

$$\int \frac{1}{\sqrt{1-x^2}}\,\mathrm{d}x = \arcsin x + c,$$

linearita integrálu: $\int (f \pm g) = \int f \pm \int g, \quad \int k \cdot f = k \int f \qquad \text{pro } k \in \mathbb{R}$

per partes: $\int f \cdot g' = f \cdot g - \int f' \cdot g$

substituce: $\int f(g(x)) \cdot g'(x)\,\mathrm{d}x = \int f(y)\,\mathrm{d}y = F(y) + c = F(g(x)) + c,$
kde F je primitivní funkce k funkci f

integrály funkcí ve speciálním tvaru:

$$\int f(ax+b)\,\mathrm{d}x = \frac{1}{a}F(ax+b) + c\,,$$

$$\int \frac{f'(x)}{f(x)}\,\mathrm{d}x = \ln|f(x)| + c\,,$$

$$\int f(x) \cdot f'(x)\,\mathrm{d}x = \tfrac{1}{2}\,f^2(x) + c\,,$$

$$\int \frac{1}{x^2+a}\,\mathrm{d}x = \frac{1}{\sqrt{a}}\,\mathrm{arctg}\,\frac{x}{\sqrt{a}} + c \qquad \text{pro } a > 0$$