

MATEMATIKA VŠE

INTEGRÁLY

$$\int 0 \, dx = c,$$

$$\int 1 \, dx = x + c,$$

$$\int x^a \, dx = \frac{x^{a+1}}{a+1} + c \quad \text{pro } a \neq -1$$

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

$$\int e^x \, dx = e^x + c,$$

$$\int a^x \, dx = \frac{a^x}{\ln a} + c,$$

$$\int \cos x \, dx = \sin x + c,$$

$$\int \sin x \, dx = -\cos x + c,$$

$$\int \frac{1}{\cos^2 x} \, dx = \operatorname{tg} x + c,$$

$$\int \frac{1}{\sin^2 x} \, dx = -\operatorname{cotg} x + c,$$

Integrace součtu a rozdílu

$$\int (f \pm g) \, dx = \int f \, dx \pm \int g \, dx$$

Per partes

$$\int f \cdot g' \, dx = f \cdot g - \int f' \cdot g \, dx$$

Substituční metoda

$$\int f(g) \cdot g' \, dx = \int f(y) \, dy, \quad y = g$$

Speciální vzorce

$$\int \frac{f'}{f} \, dx = \ln |f| + c$$

$$\int f(ax + b) \, dx = \frac{F(ax + b)}{a} + c$$