

## Grundintegrale

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

$$\int x^n \, dx = \frac{x^{n+1}}{n+1} + c, n \in \mathbb{R} \setminus \{-1\}$$

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

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

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

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

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

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

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

$$\int \tan^2 x \, dx = \tan x - x + c$$

$$\int \cot^2 x \, dx = -\cot x - x + c$$

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

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

$$\int \sinh x \, dx = \cosh x + c$$

$$\int \cosh x \, dx = \sinh x + c$$

$$\int \tanh^2 x \, dx = x - \tanh x + c$$

$$\int \coth^2 x \, dx = x - \coth x + c$$

$$\int \frac{1}{\sinh^2 x} \, dx = -\coth x + c$$

$$\int \frac{1}{\cosh^2 x} \, dx = \tanh x + c$$

$$\int \frac{1}{(x+a)^2} \, dx = -\frac{1}{x+a} + c$$

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

$$\int \ln x \, dx = x \cdot \ln x - x + c$$

$$\int x \cdot \ln x \, dx = x^2 \cdot \left( \frac{\ln x}{2} - \frac{1}{4} \right) + c$$

$$\int \sin^2 ax \, dx = \frac{1}{2}x - \frac{1}{4a} \sin \cdot 2ax + c$$

$$\int \cos^2 ax \, dx = \frac{1}{2}x + \frac{1}{4a} \sin \cdot 2ax + c$$

$$\int \frac{1}{\sin ax \cdot \cos ax} \, dx = \frac{1}{a} \cdot \ln |\tan ax| + c$$