

Tabel de integrale nedefinite

1. $\int dx = x + C, x \in \mathbb{R}$
2. $\int x^\alpha dx = \frac{x^{\alpha+1}}{\alpha+1} + C, x \in (0, +\infty), \alpha \neq -1$
3. $\int a^x dx = \frac{a^x}{\ln a} + C, x \in \mathbb{R}$
4. $\int e^x dx = e^x + C, x \in \mathbb{R}$
5. $\int \frac{1}{x} dx = \ln|x| + C, x \in I \subset \mathbb{R}^*$
6. $\int \frac{1}{x^2 - a^2} dx = \frac{1}{2a} \ln \left| \frac{x-a}{x+a} \right| + C, x \in I \subset \mathbb{R} \setminus \{\pm a\}, a \neq 0$
7. $\int \frac{1}{x^2 + a^2} dx = \frac{1}{a} \operatorname{arctg} \frac{x}{a} + C, x \in \mathbb{R}, a \neq 0$
8. $\int \frac{1}{\sqrt{a^2 - x^2}} dx = \operatorname{arcsin} \frac{x}{a} + C, x \in (-a, a), a \neq 0$
9. $\int \sin x dx = -\cos x + C, x \in \mathbb{R}$
10. $\int \cos x dx = \sin x + C, x \in \mathbb{R}$
11. $\int \frac{1}{\sin^2 x} dx = -\operatorname{ctg} x + C, x \in I \subset \mathbb{R} \setminus \{k\pi\}$
12. $\int \frac{1}{\cos^2 x} dx = \operatorname{tg} x + C, x \in I \subset \mathbb{R} \setminus \left\{ (2k+1) \frac{\pi}{2} \right\}$
13. $\int \operatorname{tg} x dx = -\ln |\cos x| + C, x \in I \subset \mathbb{R} \setminus \left\{ (2k+1) \frac{\pi}{2} \right\}$
14. $\int \operatorname{ctg} x dx = \ln |\sin x| + C, x \in I \subset \mathbb{R} \setminus \{k\pi\}$