

TABEL PRIMITIVE

1.	$\int 1 \, dx = x + \mathcal{C}$	13.	$\int \sin(x) \, dx = -\cos(x) + \mathcal{C}$
2.	$\int x \, dx = \frac{x^2}{2} + \mathcal{C}$	14.	$\int \cos(x) \, dx = \sin(x) + \mathcal{C}$
3.	$\int x^n \, dx = \frac{x^{n+1}}{n+1} + \mathcal{C}, \forall n \in \mathbb{N}$	15.	$\int \sin(ax+b) \, dx = \frac{-\cos(ax+b)}{a} + \mathcal{C}, \forall a, b \in \mathbb{R}, a \neq 0$
4.	$\int \frac{1}{x} \, dx = \ln x + \mathcal{C}$	16.	$\int \cos(ax+b) \, dx = \frac{\sin(ax+b)}{a} + \mathcal{C}, \forall a, b \in \mathbb{R}, a \neq 0$
5.	$\int \frac{1}{x^2} \, dx = -\frac{1}{x} + \mathcal{C}$	17.	$\int \frac{1}{\cos^2(x)} \, dx = \operatorname{tg}(x) + \mathcal{C}$
6.	$\int x^\alpha \, dx = \frac{x^{\alpha+1}}{\alpha+1}, \forall \alpha \in \mathbb{R} \setminus \{-1\}$	18.	$\int \frac{1}{\sin^2(x)} \, dx = -\frac{1}{\operatorname{tg}(x)} + \mathcal{C}$
7.	$\int \sqrt{x} \, dx = \int x^{1/2} \, dx = \frac{x^{1/2+1}}{1/2+1} + \mathcal{C} = \frac{2x\sqrt{x}}{3} + \mathcal{C}$	19.	$\int \frac{1}{x^2+a^2} \, dx = \frac{1}{a} \operatorname{arctg}\left(\frac{x}{a}\right) + \mathcal{C}, \forall a \in \mathbb{R}^*$
8.	$\int \frac{1}{\sqrt{x}} \, dx = \int x^{-1/2} \, dx = \frac{x^{-1/2+1}}{-1/2+1} + \mathcal{C} = 2\sqrt{x} + \mathcal{C}$	20.	$\int \frac{1}{x^2-a^2} \, dx = \frac{1}{2a} \ln \left \frac{x-a}{x+a} \right + \mathcal{C}, \forall a > 0$
9.	$\int e^x \, dx = e^x + \mathcal{C}$	21.	$\int \frac{1}{\sqrt{a^2-x^2}} \, dx = \arcsin\left(\frac{x}{a}\right) + \mathcal{C}, \forall a > 0$
10.	$\int e^{-x} \, dx = -e^{-x} + \mathcal{C}$	22.	$\int \frac{1}{\sqrt{x^2+a^2}} \, dx = \ln(x + \sqrt{x^2+a^2}) + \mathcal{C}$
11.	$\int e^{ax+b} \, dx = \frac{e^{ax+b}}{a} + \mathcal{C}, \forall a, b \in \mathbb{R}, a \neq 0$	23.	$\int \frac{1}{\sqrt{x^2-a^2}} \, dx = \ln \left x + \sqrt{x^2-a^2} \right + \mathcal{C}$
12.	$\int a^x \, dx = \frac{a^x}{\ln(a)} + \mathcal{C}, \forall a > 0, a \neq 1$		

Formula de integrare prin părți (MIP):

$$\int f(x) \cdot g'(x) \, dx = f(x) \cdot g(x) - \int f'(x) \cdot g(x) \, dx$$

Formula schimbării de variabilă (MSV):

$$\int f(u(x)) \cdot u'(x) \, dx = \int f(t) \, dt, \text{ unde } t = u(x).$$