TABEL DE NTEGRALE NEDEFINITE

Nr. Crt.	***FUNCTIA***	***INTEGRALA NEDEFINITA***
1.	$f:\mathbb{R}\to\mathbb{R}, f(x)=x^n, n\in\mathbb{N}$	$\int x^n dx=\frac{x^{n+1}}{n+1}+c$
2.	$f:I\to\mathbb{R}, f(x)=x^a, a\in\mathbb{R}\setminus\{-1\}, I\subset(0,\infty)$	$\int x^a dx=\frac{x^{a+1}}{a+1}+c$
3.	$f:I\to\mathbb{R}, f(x)=\frac{1}{x}, I\subset(0,\infty)$	$\int \frac{1}{x}dx=\ln\lvert x\rvert+c$
4.	$f:\mathbb{R}\to\mathbb{R}, f(x)=a^x, a>0, a\neq 1$	$\int a^x dx=\frac{a^x}{\ln a}+c$
5.	$f:\mathbb{R}\to\mathbb{R}, f(x)=e^x$	$\int e^x dx=e^x+c$
6.	$f:I\to\mathbb{R}, I\subset\mathbb{R}\setminus\{\pm a\}, f(x)=\frac{1}{x^2-a^2}$	$\int \frac{1}{x^2-a^2}dx=\frac{1}{2a}\ln\left\lvert\frac{x-a}{x+a}\right\rvert+c$
7.	$f:\mathbb{R}\to\mathbb{R}, f(x)=\frac{1}{x^2+a^2}, a\neq 0$	$\int \frac{1}{x^2+a^2}dx=\frac{1}{a}arctg\frac{x}{a}+c$
8.	$f:I\to\mathbb{R}, I\subset(-a,a), a\neq 0, f(x)=\frac{1}{\sqrt{a^2-x^2}}$	$\int \frac{1}{\sqrt{a^2-x^2}}dx=\arcsin\frac{x}{a}+c$
9.	$f:\mathbb{R}\to\mathbb{R}, f(x)=\frac{1}{\sqrt{x^2+a^2}}, a\neq 0$	$\int \frac{1}{\sqrt{x^2+a^2}}dx=\ln(x+\sqrt{x^2+a^2})+c$
10.	$f:I\to\mathbb{R}, I\subset(-\infty,-a), I\subset(a,\infty), a>0$ $f(x)=\frac{1}{\sqrt{x^2-a^2}}$	$\int \frac{1}{\sqrt{x^2-a^2}}dx=\ln\left\lvert x+\sqrt{x^2-a^2}\right\rvert+c$
11.	$f:\mathbb{R}\to\mathbb{R}, f(x)=\sin x$	$\int \sin x dx=-\cos x+c$
12.	$f:\mathbb{R}\to\mathbb{R}, f(x)=\cos x$	$\int \cos x dx=\sin x+c$
13.	$f:I\to\mathbb{R}, I\subset\mathbb{R}\setminus\{(2k+1)\frac{\pi}{2};k\in\mathbb{Z}\}$ $f(x)=\frac{1}{\cos^2 x}$	$\int \frac{1}{\cos^2 x}dx=tgx+c$
14.	$f:I\to\mathbb{R}, I\subset\mathbb{R}\setminus\{(k\pi;k\in\mathbb{Z}\}$ $f(x)=\frac{1}{\sin^2 x}$	$\int \frac{1}{\sin^2 x}dx=-ctgx+c$
15.	$f:I\to\mathbb{R}, I\subset\mathbb{R}\setminus\{((2k+1)\frac{\pi}{2};k\in\mathbb{Z}\}$ $f(x)=tgx$	$\int tgx dx=-\ln\lvert\cos x\rvert+c$
16.	$f:I\to\mathbb{R}, I\subset\mathbb{R}\setminus\{(k\pi;k\in\mathbb{Z}\}$ $f(x)=ctgx$	$\int ctgx dx=\ln\lvert\sin x\rvert+c$