Clasa a XII-a- M2
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Tabel de integrale nedefinite

Nr. crt	Funcţia	Integrala nedefinită
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	$f:I\to\mathbb{R}, I\subset(0;+\infty), f(x)=x^a, a\in\mathbb{R}-\{-1\}$	$\int x^a dx=\frac{x^{a+1}}{a+1}+C$
3	$f:I\to\mathbb{R}, I\subset(0;+\infty)$ sau $I\subset(-\infty;0)$ $f(x)=\frac{1}{x}$	$\int\frac{1}{x}dx=\ln\lvert x\rvert+C$
4	$f:\mathbb{R}\to(0;+\infty), f(x)=a^x, a>0, a\neq 1$	$\int a^x dx=\frac{a^x}{\ln a}+C$
5	$f:\mathbb{R}\to(0;+\infty), f(x)=e^x$	$\int e^x dx=e^x+C$
6	$f:I\to\mathbb{R}, I=(0;+\infty)$ sau $I=(-\infty;0)$ sau $I=(-a;a), a>0$, $f(x)=\frac{1}{x^2-a^2}$	$\int\frac{1}{x^2-a^2}dx=\frac{1}{2a}\ln\left\lvert\frac{x-a}{x+a}\right\rvert+C$
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	$f:\mathbb{R}\to\mathbb{R},$, $f(x)=\frac{1}{\sqrt{x^2+a^2}}, a\neq 0$	$\int\frac{1}{\sqrt{x^2+a^2}}dx=\ln\left(x+\sqrt{x^2+a^2}\right)+C$
10	$f:I\to\mathbb{R}, I\subset(-\infty;-a)$, sau $I\subset(a;+\infty), a>0$ $f(x)=\frac{1}{\sqrt{x^2-a^2}}$	$\int\frac{1}{\sqrt{x^2-a^2}}dx=\ln\left\lvert x+\sqrt{x^2-a^2}\right\rvert+C$
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	$f:I\to\mathbb{R}, I\subseteq\left((2k+1)\frac{\pi}{2};(2k+3)\frac{\pi}{2}\right), k\in\mathbb{Z}$ $f(x)=\frac{1}{\cos^2 x}$	$\int\frac{1}{\cos^2 x}dx=tgx+C$
14	$f:I\to\mathbb{R}, I\subseteq(k\pi;(k+1)\pi), k\in\mathbb{Z}$ $f(x)=\frac{1}{\sin^2 x}$	$\int\frac{1}{\sin^2 x}dx=-ctgx+C$
15	$f:I\to\mathbb{R}, I\subseteq\left((2k+1)\frac{\pi}{2};(2k+3)\frac{\pi}{2}\right), k\in\mathbb{Z}$ $f(x)=tgx$	$\int tgx dx=-\ln\lvert\cos x\rvert+C$
16	$f:I\to\mathbb{R}, I\subseteq(k\pi;(k+1)\pi), k\in\mathbb{Z}$, $f(x)=ctgx$	$\int ctgx dx=\ln\lvert\sin x\rvert+C$