Nr.	Derivate
1	c'=0
2	x'=1
3	$\left(x^{n}\right)^{n}=nx^{n-1}$
4	$\left(\sqrt{x}\right) = \frac{1}{2\sqrt{x}}$
5	$\left(\frac{1}{x}\right)' = -\frac{1}{x^2}$
6	$(e^x)'=e^x$
7	$\left(a^{x}\right) = a^{x} \ln a$
8	$\left(\ln x\right)' = \frac{1}{x}$
9	$(\log_a x)' = \frac{1}{x \ln a}$
10	$\left(\operatorname{arctg} x\right)' = \frac{1}{x^2 + 1}$
11	$\left(\operatorname{arcctg} x\right)' = -\frac{1}{x^2 + 1}$
12	$(\arcsin x)' = \frac{1}{\sqrt{1-x^2}}$
13	$(\arccos x)' = -\frac{1}{\sqrt{1-x^2}}$
14	$(\sin x)' = \cos x$
15	$(\cos x)' = -\sin x$
16	$(\operatorname{tg} x)' = \frac{1}{\cos^2 x}$
17	$\left(\operatorname{ctg} x\right)' = -\frac{1}{\sin^2 x}$
18	$\left(\sqrt{x^2 - a^2}\right) = \frac{x}{\sqrt{x^2 - a^2}}$
19	$\left(\sqrt{x^2 + a^2}\right) = \frac{x}{\sqrt{x^2 + a^2}}$
20	$\left(\sqrt{a^2 - x^2}\right) = -\frac{x}{\sqrt{a^2 - x^2}}$

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$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Nr.	Integrale nedefinite	
$3 \int x^{n} dx = \frac{x^{n+1}}{n+1} + C$ $4 \int \sqrt{x} dx = \frac{2}{3} x \sqrt{x} + C$ $5 \int e^{x} dx = e^{x} + C$ $6 \int a^{x} dx = \frac{a^{x}}{\ln a} + C$ $7 \int \frac{1}{x} dx = \ln x + C$ $8 \int \frac{1}{x^{2} - a^{2}} dx = \frac{1}{2a} \ln\left \frac{x - a}{x + a}\right + C$ $9 \int \frac{1}{x^{2} + 1} dx = \arctan x + C$ $10 \int \frac{1}{\sqrt{x^{2} + a^{2}}} dx = \frac{1}{a} \arctan \frac{x}{a} + C$ $11 \int \frac{1}{\sqrt{x^{2} - a^{2}}} dx = \ln\left x + \sqrt{x^{2} - a^{2}}\right + C$ $12 \int \frac{1}{\sqrt{x^{2} + a^{2}}} dx = \ln\left(x + \sqrt{x^{2} + a^{2}}\right) + C$ $13 \int \frac{1}{\sqrt{1 - x^{2}}} dx = \arcsin x + C$ $14 \int \frac{1}{\sqrt{a^{2} - x^{2}}} dx = \arcsin \frac{x}{a} + C$ $15 \int \sin x dx = -\cos x + C$ $16 \int \cos x dx = \sin x + C$ $17 \int \tan x dx = -\ln \cos x + C$ $18 \int \cot x dx = \ln \sin x + C$ $19 \int \frac{1}{\cos^{2} x} dx = \tan x + C$ $20 \int \frac{1}{\sin^{2} x} dx = -\cot x + C$ $21 \int \frac{x}{\sqrt{x^{2} - a^{2}}} dx = \sqrt{x^{2} - a^{2}} + C$ $22 \int \frac{x}{\sqrt{x^{2} + a^{2}}} dx = \sqrt{x^{2} - a^{2}} + C$	1	$\int dx = x + C$	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	2	$\int x dx = \frac{x^2}{2} + C$	
	3	$\int x^n dx = \frac{x^{n+1}}{n+1} + C$	
	4	$\int \sqrt{x} dx = \frac{2}{3} x \sqrt{x} + C$	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	5	$\int e^x dx = e^x + C$	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	6	$\int a^x dx = \frac{a^x}{\ln a} + C$	
9 $\int \frac{1}{x^2 + 1} dx = \arctan x + C$ 10 $\int \frac{1}{x^2 + a^2} dx = \frac{1}{a} \arctan \frac{x}{a} + C$ 11 $\int \frac{1}{\sqrt{x^2 - a^2}} dx = \ln x + \sqrt{x^2 - a^2} + C$ 12 $\int \frac{1}{\sqrt{x^2 + a^2}} dx = \ln (x + \sqrt{x^2 + a^2}) + C$ 13 $\int \frac{1}{\sqrt{1 - x^2}} dx = \arcsin x + C$ 14 $\int \frac{1}{\sqrt{a^2 - x^2}} dx = \arcsin \frac{x}{a} + C$ 15 $\int \sin x dx = -\cos x + C$ 16 $\int \cos x dx = \sin x + C$ 17 $\int \tan x dx = -\ln \cos x + C$ 18 $\int \cot x dx = \ln \sin x + C$ 19 $\int \frac{1}{\cos^2 x} dx = \tan x + C$ 20 $\int \frac{1}{\sin^2 x} dx = -\cot x + C$ 21 $\int \frac{x}{\sqrt{x^2 - a^2}} dx = \sqrt{x^2 - a^2} + C$ 22 $\int \frac{x}{\sqrt{x^2 + a^2}} dx = \sqrt{x^2 + a^2} + C$	7	$\int \frac{1}{x} dx = \ln x + C$	
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12 $\int \frac{1}{\sqrt{x^2 + a^2}} dx = \ln(x + \sqrt{x^2 + a^2}) + C$ 13 $\int \frac{1}{\sqrt{1 - x^2}} dx = \arcsin x + C$ 14 $\int \frac{1}{\sqrt{a^2 - x^2}} dx = \arcsin \frac{x}{a} + C$ 15 $\int \sin x dx = -\cos x + C$ 16 $\int \cos x dx = \sin x + C$ 17 $\int \tan x dx = -\ln \cos x + C$ 18 $\int \cot x dx = \ln \sin x + C$ 19 $\int \frac{1}{\cos^2 x} dx = \tan x + C$ 20 $\int \frac{1}{\sin^2 x} dx = -\cot x + C$ 21 $\int \frac{x}{\sqrt{x^2 - a^2}} dx = \sqrt{x^2 - a^2} + C$ 22 $\int \frac{x}{\sqrt{x^2 + a^2}} dx = \sqrt{x^2 + a^2} + C$	10	$\int \frac{1}{x^2 + a^2} dx = \frac{1}{a} \arctan \frac{x}{a} + C$	
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V 20 1 CF	21	$\int \frac{x}{\sqrt{x^2 - a^2}} dx = \sqrt{x^2 - a^2} + C$	
$23 \qquad \int \frac{x}{\sqrt{a^2 - x^2}} dx = -\sqrt{a^2 - x^2} + C$	22	$\int \frac{x}{\sqrt{x^2 + a^2}} dx = \sqrt{x^2 + a^2} + C$	
	23	$\int \frac{x}{\sqrt{a^2 - x^2}} dx = -\sqrt{a^2 - x^2} + C$	

Nr. crt.	Opera ii	Formule
1	$(f \pm g)' = f' \pm g'$	D : ('')
2	$(f \cdot g)' = f' \cdot g + f \cdot g'$	Derivarea func iilor compuse $(f(u))' = f'(u) \cdot u'$
3	$\left(cf\right)' = c \cdot f'$	
4	,	Derivata fuc iei inverse
	$\left(\frac{f}{g}\right)' = \frac{f' \cdot g - f \cdot g'}{g^2}$	$(f^{-1})'(y) = \frac{1}{f'(x)}, unde \ y = f(x)$
5	$\int [f(x) + g(x)]dx = \int f(x)dx + \int g(x)dx$	Formula Leibniz-Newton
		$\int_{a}^{b} f(x)dx = F(x)\Big _{a}^{b} = F(b) - F(a), F \text{ o primitiva } f$
6	$\int \alpha \cdot f(x) dx = \alpha \int f(x) dx$	Integrarea prin pri
		$\int_{a}^{b} f(x)g'(x)dx = f(x)g(x)\Big _{a}^{b} - \int_{a}^{b} f'(x)g(x)dx$
7	$\int [f(x) - g(x)] dx = \int f(x) dx - \int g(x) dx$	Prima schimbare de variabil
		$\int_{a}^{b} f(\varphi(x)) \cdot \varphi'(x) dx = \int_{\varphi(a)}^{\varphi(b)} f(t) dt$

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