

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

Nr.	Integrale nedefinite
1	$\int dx = x + C$
2	$\int x dx = \frac{x^2}{2} + C$
3	$\int x^n dx = \frac{x^{n+1}}{n+1} + C$
4	$\int \sqrt{x} dx = \frac{2}{3} x\sqrt{x} + C$
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	$\int \frac{1}{x^2 + 1} dx = \operatorname{arctg} x + C$
10	$\int \frac{1}{x^2 + a^2} dx = \frac{1}{a} \operatorname{arctg} \frac{x}{a} + C$
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	$\int \operatorname{tg} x dx = -\ln \cos x + C$
18	$\int \operatorname{ctg} x dx = \ln \sin x + C$
19	$\int \frac{1}{\cos^2 x} dx = \operatorname{tg} x + C$
20	$\int \frac{1}{\sin^2 x} dx = -\operatorname{ctg} x + C$
21	$\int \frac{x}{\sqrt{x^2 - a^2}} dx = \sqrt{x^2 - a^2} + C$
22	$\int \frac{x}{\sqrt{x^2 + a^2}} dx = \sqrt{x^2 + a^2} + C$
23	$\int \frac{x}{\sqrt{a^2 - x^2}} dx = -\sqrt{a^2 - x^2} + C$

Nr. crt.	Opera ii	Formule
1	$(f \pm g)' = f' \pm g'$	Derivarea func iilor compuse $(f(u))' = f'(u) \cdot u'$
2	$(f \cdot g)' = f' \cdot g + f \cdot g'$	
3	$(cf)' = c \cdot f'$	
4	$\left(\frac{f}{g}\right)' = \frac{f' \cdot g - f \cdot g'}{g^2}$	Derivata func iei inverse $(f^{-1})'(y) = \frac{1}{f'(x)}$, 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 o primitiva f
6	$\int \alpha \cdot f(x) dx = \alpha \int f(x) dx$	Integrarea prin p r i $\int_a^b f(x) g'(x) dx = f(x) g(x) \Big _a^b - \int_a^b f'(x) g(x) dx$
7	$\int [f(x) - g(x)] dx = \int f(x) dx - \int g(x) dx$	Prima schimbare de variabil $\int_a^b f(\varphi(x)) \cdot \varphi'(x) dx = \int_{\varphi(a)}^{\varphi(b)} f(t) dt$