	Formula	Exemplul
1.	$(u^n)' = n \cdot u^{n-1} \cdot u'$	$((\sin x)^5)' = 5 \cdot (\sin x)^4 \cdot (\sin x)' = 5 \cdot (\sin x)^4 \cdot \cos x$
2.	$(u^2)' = 2 \cdot u \cdot u'$	$(\ln^2 x)' = 2 \cdot \ln x \cdot (\ln x)' = 2 \cdot \ln x \cdot \frac{1}{x} = \frac{2\ln x}{x}$
3.	$\left(\frac{1}{u}\right)' = -\frac{1}{u^2} \cdot u'$	$\left(\frac{1}{x^2+1}\right)' = -\frac{1}{(x^2+1)^2} \cdot (x^2+1)' = -\frac{2x}{(x^2+1)^2}$
4.	$\left(\sqrt{u}\right)' = \frac{1}{2\sqrt{u}} \cdot u'$	$\left(\sqrt{x^2+a^2}\right)' = \frac{1}{2\sqrt{x^2+a^2}} \cdot (x^2+a^2)' = \frac{x}{\sqrt{x^2+a^2}}$
5.	$\left(\sqrt[n]{u}\right)' = \frac{1}{n \cdot \sqrt[n]{u^{n-1}}} \cdot u'$	$\left(\sqrt[5]{2x-3}\right)' = \frac{1}{5 \cdot \sqrt[5]{(2x-3)^4}} \cdot (2x-3)' = \frac{2}{5 \cdot \sqrt[5]{(2x-3)^4}}$
6.	$(e^u)' = e^u \cdot u'$	$(e^{arctgx})' = e^{arctgx} \cdot (arctgx)' = e^{arctgx} \cdot \frac{1}{x^2+1}$
7.	$(a^u)' = a^u \cdot \ln a \cdot u'$	$\left(3^{\sqrt{x}}\right)' = 3^{\sqrt{x}} \cdot \ln 3 \cdot \left(\sqrt{x}\right)' = 3^{\sqrt{x}} \cdot \ln 3 \cdot \frac{1}{2\sqrt{x}}$
8.	$(\ln u)' = \frac{1}{u} \cdot u'$	$(\ln(\ln x))' = \frac{1}{\ln x} \cdot (\ln x)' = \frac{1}{\ln x} \cdot \frac{1}{x} = \frac{1}{x \ln x}$
9.	$(\log_a u)' = \frac{1}{u \cdot \ln a} \cdot u'$	$(\log_2(x^2-x))' = \frac{1}{(x^2-x) \cdot \ln 2} \cdot (x^2-x)' = \frac{2x-1}{\ln 2 \cdot (x^2-x)}$
10.	$(\sin u)' = \cos u \cdot u'$	$(\sin e^x)' = \cos e^x \cdot (e^x)' = e^x \cdot \cos e^x$
11.	$(\cos u)' = -\sin u \cdot u'$	$(\cos(\sin x))' = -\sin(\sin x) \cdot (\sin x)' = -\sin(\sin x) \cdot \cos x$
12.	$(tg\, u)' = \frac{1}{\cos^2 u} \cdot u'$	$\left(tg\,(x^2+1)\right)' = \frac{1}{\cos^2(x^2+1)} \cdot (x^2+1)' = \frac{2x}{\cos^2(x^2+1)}$
13.	$(ctg\, u)' = -\frac{1}{\sin^2 u} \cdot u'$	$\left(ctg\,\sqrt{x}\right)' = -\frac{1}{\sin^2\sqrt{x}} \cdot \left(\sqrt{x}\right)' = -\frac{1}{\sin^2\sqrt{x}} \cdot \frac{1}{2\sqrt{x}}$
14.	$(\arcsin u)' = \frac{1}{\sqrt{1-u^2}} \cdot u'$	$(\arcsin x^2)' = \frac{1}{\sqrt{1-(x^2)^2}} \cdot (x^2)' = \frac{2x}{\sqrt{1-x^4}}$
15.	$(arctg\, u)' = \frac{1}{u^2+1} \cdot u'$	$\left(arctg\,(x+1)\right)' = \frac{1}{(x+1)^2+1} \cdot (x+1)' = \frac{1}{(x+1)^2+1}$
16.	$(\arccos u)' = -\frac{1}{\sqrt{1-u^2}} \cdot u'$	$(\arccos e^x)' = -\frac{1}{\sqrt{1-(e^x)^2}} \cdot (e^x)' = -\frac{e^x}{\sqrt{1-e^{2x}}}$
17.	$(arcctg\, u)' = -\frac{1}{u^2+1} \cdot u'$	$(arcctg\, x^3)' = -\frac{1}{(x^3)^2+1} \cdot (x^3)' = -\frac{3x^2}{x^6+1}$

Integrale nedefinite

1	$\int 1\ dx = \int dx = x + C$	
2	$\int x^n\, dx = \frac{x^{n+1}}{n+1} + C$	$\int u^n(x) \cdot u'(x) dx = \frac{u^{n+1}(x)}{n+1} + C$
3	$\int e^x\, dx = e^x + C$	$\int e^{u(x)} \cdot u'(x) dx = e^{u(x)} + C$
4	$\int a^x dx = \frac{a^x}{\ln a} + C$	$\int a^{u(x)} \cdot u'(x) dx = \frac{a^{u(x)}}{\ln a} + C$
5	$\int \frac{1}{x} dx = \ln x + C$	$\int \frac{1}{u(x)} \cdot u'(x)\, dx = \ln u(x) + C$
6	$\int \frac{1}{x^2 - a^2} dx = \frac{1}{2a} \ln \left\lvert \frac{x-a}{x+a} \right\rvert + C$	$\int \frac{1}{u^2(x) - a^2} \cdot u'(x) dx = \frac{1}{2a} \ln \left\lvert \frac{u(x)-a}{u(x)+a} \right\rvert + C$
7	$\int \frac{1}{x^2 + a^2} dx = \frac{1}{a} \operatorname{arctg} \frac{x}{a} + C$	$\int \frac{1}{u^2(x) + a^2} \cdot u'(x) dx = \frac{1}{a} \operatorname{arctg} \frac{u(x)}{a} + C$
8	$\int \frac{1}{\sqrt{x^2 - a^2}} dx = \ln \left\lvert x + \sqrt{x^2 - a^2} \right\rvert + C$	$\int \frac{1}{\sqrt{u^2(x) - a^2}} \cdot u'(x) dx = \ln \left\lvert u(x) + \sqrt{u^2(x) - a^2} \right\rvert + C$
9	$\int \frac{1}{\sqrt{x^2 + a^2}} dx = \ln \left(x + \sqrt{x^2 + a^2} \right) + C$	$\int \frac{1}{\sqrt{u^2(x) + a^2}} \cdot u'(x) dx = \ln \left(u(x) + \sqrt{u^2(x) + a^2} \right) + C$
10	$\int \frac{1}{\sqrt{a^2 - x^2}} dx = \arcsin \frac{x}{a} + C$	$\int \frac{1}{\sqrt{a^2 - u^2(x)}} \cdot u'(x) dx = \arcsin \frac{u(x)}{a} + C$
11	$\int \sin x\, dx = -\cos x + C$	$\int \sin u(x) \cdot u'(x)\, dx = -\cos u(x) + C$
12	$\int \cos x\ dx = \sin x + C$	$\int \cos u(x)\ \cdot u'(x) dx = \sin u(x) + C$
13	$\int \operatorname{tg} x\, dx = -\ln\lvert\cos x\rvert + C$	$\int \operatorname{tg} u(x) \cdot u'(x)\, dx = -\ln\lvert\cos u(x)\rvert + C$
14	$\int \operatorname{ctg} x\, dx = \ln\lvert\sin x\rvert + C$	$\int \operatorname{ctg} u(x) \cdot u'(x)\, dx = \ln\lvert\sin u(x)\rvert + C$
15	$\int \frac{1}{\sin^2 x} dx = -\operatorname{ctg} x + C$	$\int \frac{1}{\sin^2 u(x)} \cdot u'(x) dx = -\operatorname{ctg} u(x) + C$
16	$\int \frac{1}{\cos^2 x} dx = \operatorname{tg} x + C$	$\int \frac{1}{\cos^2 u(x)} \cdot u'(x)\, dx = \operatorname{tg} u(x) + C$

Proprietăți ale funcțiilor trigonometrice	
Mărginirea	
$-1 \le \sin x \le 1, \forall x \in \mathbb{R}$	$-1 \le \cos x \le 1, \forall x \in \mathbb{R}$
Paritatea	
$\sin(-x) = -\sin x$	$tg\ (-x) = -tg\ x$
$\cos(-x) = \cos x$	$ctg\ (-x) = -ctg\ x$
Observație! ***cos*** este funcției pară, ***sin, tg, ctg*** funcții impare	
Periodicitatea	
$\sin(x + 2k\pi) = \sin x, \forall x \in \mathbb{R}, k \in \mathbb{Z}$	$\mathrm{tg}(x + k\pi) = \mathrm{tg}\, x, \forall x \in \mathbb{R} \setminus \left(\frac{\pi}{2} + \mathbb{Z}\pi\right), k \in \mathbb{Z}$
$\cos(x + 2k\pi) = \cos x, \forall x \in \mathbb{R}, k \in \mathbb{Z}$	$\mathrm{ctg}(x + k\pi) = \mathrm{ctg}\, x, \forall x \in \mathbb{R} \setminus (\mathbb{Z}\pi), k \in \mathbb{Z}$

Formule trigonometrice	
Formula fundamentală a trigonometriei $\sin^2 x + \cos^2 x = 1, \forall x \in \mathbb{R}$	
$\sin(90° - x) = \cos x$	$\sin(180° - x) = \sin x$
$\cos(90° - x) = \sin x$	$\cos(180° - x) = -\cos x$
$\sin(a + b) = \sin a \cos b + \cos a \sin b$	$\sin(a - b) = \sin a \cos b - \cos a \sin b$
$\cos(a + b) = \cos a \cos b - \sin a \sin b$	$\cos(a - b) = \cos a \cos b + \sin a \sin b$
$\sin 2x = 2 \sin x \cos x$	$\cos 2x = \cos^2 x - \sin^2 x$
$\cos 2x = 2\cos^2 x - 1$	$\cos 2x = 1 - 2\sin^2 x$
$tg\ x = \frac{\sin x}{\cos x}$	$ctg\ x = \frac{\cos x}{\sin x}$

$tg\ (a + b) = \frac{tg\ a + tg\ b}{1 - tga\ tgb}$	$tg\ (a - b) = \frac{tg\ a - tg\ b}{1 + tga\ tgb}$
$tg\ 2x = \frac{2tgx}{1 - tg^2 x}$	$tg\ \frac{x}{2} = \frac{\sin x}{1 + \cos x}$
$\sin x = \frac{2tg\frac{x}{2}}{1 + tg^2\frac{x}{2}}$	$\cos x = \frac{1 - tg^2\frac{x}{2}}{1 + tg^2\frac{x}{2}}$
Transformarea unor sume în produs	
$\sin a + \sin b = 2\sin\frac{a+b}{2} \cdot \cos\frac{a-b}{2}$	$\cos a + \cos b = 2\cos\frac{a+b}{2} \cdot \cos\frac{a-b}{2}$
$\sin a - \sin b = 2\sin\frac{a-b}{2} \cdot \cos\frac{a+b}{2}$	$\cos a - \cos b = -2\sin\frac{a+b}{2} \cdot \sin\frac{a-b}{2}$