

FORMULE: Analiza 1

Tablica izvoda	Tablica integrala
$c' = 0, c = const$ $(x^a)' = ax^{a-1}, (a \neq 0)$ $(\sin x)' = \cos x$ $(\cos x)' = -\sin x$ $(\operatorname{tg} x)' = \frac{1}{\cos^2 x}$ $(\operatorname{ctg} x)' = -\frac{1}{\sin^2 x}$ $(a^x)' = a^x \ln a, (a > 0)$ $(e^x)' = e^x$ $(\log_a x)' = \frac{1}{x \ln a}, (a > 0, a \neq 1, x > 0)$ $(\ln x)' = \frac{1}{x}, (x > 0)$ $(\arcsin x)' = \frac{1}{\sqrt{1-x^2}}, (x < 1)$ $(\arccos x)' = -\frac{1}{\sqrt{1-x^2}}, (x < 1)$ $(\operatorname{arctg} x)' = \frac{1}{1+x^2}$ $(\operatorname{arcctg} x)' = -\frac{1}{1+x^2}$	$\int k dx = kx + C$ $\int x^n dx = \frac{x^{n+1}}{n+1} + C, (n \neq -1)$ $\int \frac{1}{x} dx = \ln x + C$ $\int a^x dx = \frac{a^x}{\ln a} + C, (a > 0, a \neq 1)$ $\int e^x dx = e^x + C$ $\int \sin x dx = -\cos x + C$ $\int \cos x dx = \sin x + C$ $\int \frac{1}{\cos^2 x} dx = \operatorname{tg} x + C$ $\int \frac{1}{\sin^2 x} dx = -\operatorname{ctg} x + C$ $\int \frac{1}{a^2 + x^2} dx = \frac{1}{a} \operatorname{arctg} \frac{x}{a} + C, (a \neq 0)$ $\int \frac{1}{x^2 - a^2} dx = \frac{1}{2a} \ln \left \frac{x-a}{x+a} \right + C, (a \neq 0)$ $\int \frac{1}{\sqrt{a^2 - x^2}} dx = \arcsin \frac{x}{a} + C, (x < a, a \neq 0)$ $\int \frac{1}{\sqrt{x^2 \pm a^2}} dx = \ln \left x + \sqrt{x^2 \pm a^2} \right + C,$