

Tablica izvoda:	
Funkcija $f(x)$	Izvod $f'(x)$
$c = const$	0
x	1
x^α	$\alpha x^{\alpha-1}$
a^x	$a^x \ln a$
e^x	e^x
$\log_a x$	$\frac{1}{x \ln a}$
$\ln x $	$\frac{1}{x}$
$\sin x$	$\cos x$
$\cos x$	$-\sin x$
$\operatorname{tg} x$	$\frac{1}{\cos^2 x}$
$\operatorname{ctg} x$	$-\frac{1}{\sin^2 x}$
$\arcsin x$	$\frac{1}{\sqrt{1-x^2}}$
$\arccos x$	$-\frac{1}{\sqrt{1-x^2}}$
$\operatorname{arctg} x$	$\frac{1}{1+x^2}$
$\operatorname{arcc} \operatorname{tg} x$	$-\frac{1}{1+x^2}$

Površine ravnih figura:

$$P = \int_a^b |f(x)| dx, \quad P = \int_{t_1}^{t_2} y(t) \cdot x'_t(t) dt, \quad P = \frac{1}{2} \int_\alpha^\beta \rho^2(\varphi) d\varphi.$$

$$\text{Dužina luka krive: } l = \int_a^b \sqrt{1 + (f'(x))^2} dx, \quad l = \int_{t_1}^{t_2} \sqrt{(x'_t(t))^2 + (y'_t(t))^2} dt, \quad l = \int_\alpha^\beta \sqrt{\rho^2(\varphi) + (\rho'(\varphi))^2} d\varphi.$$

$$\text{Zapremina obrtnih tela: } V = \pi \int_a^b f^2(x) dx, \quad V = \pi \int_{t_1}^{t_2} y^2(t) \cdot x'_t(t) dt, \quad V = \frac{2\pi}{3} \int_\alpha^\beta \rho^3(\varphi) \sin \varphi d\varphi.$$

Površina omotača obrtnih tela:

$$P = 2\pi \int_a^b |f(x)| \sqrt{1 + (f'(x))^2} dx, \quad P = 2\pi \int_{t_1}^{t_2} |y(t)| \sqrt{(x'_t(t))^2 + (y'_t(t))^2} dt, \quad P = 2\pi \int_\alpha^\beta \rho(\varphi) \sqrt{\rho^2(\varphi) + (\rho'(\varphi))^2} \sin \varphi d\varphi.$$

Tablica integrala:
$\int dx = x + c$
$\int x^n dx = \frac{x^{n+1}}{n+1} + c$
$\int \frac{dx}{x} = \ln x + c$
$\int e^x dx = e^x + c$
$\int a^x dx = \frac{a^x}{\ln a} + c$
$\int \sin x dx = -\cos x + c$
$\int \cos x dx = \sin x + c$
$\int \frac{dx}{\cos^2 x} = \operatorname{tg} x + c$
$\int \frac{dx}{\sin^2 x} = -\operatorname{ctg} x + c$
$\int \frac{dx}{x^2 + a^2} = \frac{1}{a} \operatorname{arctg} \frac{x}{a} + c = -\frac{1}{a} \operatorname{arcc} \operatorname{tg} \frac{x}{a} + c_1, \quad a \neq 0$
$\int \frac{dx}{x^2 - a^2} = \frac{1}{2a} \ln \left \frac{x-a}{x+a} \right + c, \quad a \neq 0$
$\int \frac{dx}{\sqrt{x^2 \pm a^2}} = \ln \left x + \sqrt{x^2 \pm a^2} \right + c, \quad a \neq 0$
$\int \frac{dx}{\sqrt{a^2 - x^2}} = \arcsin \frac{x}{a} + c = -\arccos \frac{x}{a} + c_1, \quad a > 0$
$\int \frac{dx}{\sin x} = \ln \left \operatorname{tg} \frac{x}{2} \right + c$
$\int \frac{dx}{\cos x} = \ln \left \operatorname{tg} \left(\frac{x}{2} + \frac{\pi}{4} \right) \right + c$
$\int \sqrt{a^2 - x^2} dx = \frac{x}{2} \sqrt{a^2 - x^2} + \frac{a^2}{2} \arcsin \frac{x}{a} + c, \quad a > 0$
$\int \sqrt{x^2 + A} dx = \frac{x}{2} \sqrt{x^2 + A} + \frac{A}{2} \ln \left x + \sqrt{x^2 + A} \right + c$

$$e^x = \sum_{n=0}^{\infty} \frac{x^n}{n!}, \quad x \in \mathbb{R},$$

$$\cos x = \sum_{n=0}^{\infty} \frac{(-1)^n x^{2n}}{(2n)!}, \quad x \in \mathbb{R},$$

$$\sin x = \sum_{n=0}^{\infty} \frac{(-1)^n x^{2n+1}}{(2n+1)!}, \quad x \in \mathbb{R},$$

$$\ln(1+x) = \sum_{n=1}^{\infty} \frac{(-1)^{n+1} x^n}{n}, \quad x \in (-1, 1],$$

$$(1+x)^a = \sum_{n=0}^{\infty} \binom{a}{n} x^n, \quad x \in (-1, 1), \quad a \in \mathbb{R} \setminus \mathbb{N}_0$$

$$\frac{1}{1-x} = \sum_{n=0}^{\infty} x^n, \quad x \in (-1, 1).$$

<i>Trigonometrija:</i>		
$\sin(x+y) = \sin x \cos y + \cos x \sin y$ $\cos(x+y) = \cos x \cos y - \sin x \sin y$ $tg(x+y) = \frac{tgx+tg y}{1-tgx \cdot tgy}$ $ctg(x+y) = \frac{ctgxctgy-1}{ctgx+ctgy}$	$\sin(x-y) = \sin x \cos y - \cos x \sin y$ $\cos(x-y) = \cos x \cos y + \sin x \sin y$ $tg(x-y) = \frac{tgx-tg y}{1+tgx \cdot tgy}$ $ctg(x-y) = \frac{ctgxctgy+1}{ctgy-ctgx}$	
$\sin x + \sin y = 2 \sin \frac{x+y}{2} \cos \frac{x-y}{2}$ $\cos x + \cos y = 2 \cos \frac{x+y}{2} \cos \frac{x-y}{2}$ $tgx+tg y = \frac{\sin(x+y)}{\cos x \cos y}$ $ctgx+ctgy = \frac{\sin(x+y)}{\sin x \sin y}$	$\sin x - \sin y = 2 \sin \frac{x-y}{2} \cos \frac{x+y}{2}$ $\cos x - \cos y = -2 \sin \frac{x+y}{2} \sin \frac{x-y}{2}$ $tgx-tg y = \frac{\sin(x-y)}{\cos x \cos y}$ $ctgx-ctgy = \frac{\sin(y-x)}{\sin x \sin y}$	
$\sin 2x = 2 \sin x \cos x$ $\cos 2x = \cos^2 x - \sin^2 x$ $tg 2x = \frac{2tgx}{1-tg^2 x}$ $ctg 2x = \frac{ctg^2 x - 1}{2ctgx}$	$\sin x \cos y = \frac{1}{2} [\sin(x-y) + \sin(x+y)]$ $\sin x \sin y = \frac{1}{2} [\cos(x-y) - \cos(x+y)]$ $\cos x \cos y = \frac{1}{2} [\cos(x-y) + \cos(x+y)]$	
$\sin^2 \frac{x}{2} = \frac{1-\cos x}{2}$ $\cos^2 \frac{x}{2} = \frac{1+\cos x}{2}$	$\sin x = \frac{2tg \frac{x}{2}}{1+tg^2 \frac{x}{2}}$ $\cos x = \frac{1-tg^2 \frac{x}{2}}{1+tg^2 \frac{x}{2}}$	$\sin^2 x = \frac{tg^2 x}{1+tg^2 x}$ $\cos^2 x = \frac{1}{1+tg^2 x}$