

## Tablica integriranja

$$1. \int x^a = \frac{x^{a+1}}{a+1} + C$$

$$2. \int \frac{dx}{x} = \ln|x| + C$$

$$3. \int \frac{dx}{x^2 + a^2} = \frac{1}{a} \operatorname{arctg}\left(\frac{x}{a}\right) + C$$

$$4. \int \frac{dx}{\sqrt{a^2 - x^2}} = \arcsin\left(\frac{x}{a}\right) + C$$

$$5. \int \frac{dx}{x^2 - a^2} = \frac{1}{2a} \ln \left| \frac{x-a}{x+a} \right| + C$$

$$6. \int \frac{dx}{\sqrt{x^2 + a^2}} = \ln \left| x + \sqrt{x^2 + a^2} \right| + C$$

$$7. \int a^x dx = \frac{a^x}{\ln a} + C$$

$$8. \int e^x dx = e^x + C$$

$$9. \int e^{-x} dx = -e^x + C$$

$$10. \int \sin x \, dx = -\cos x + C$$

$$\int \sin(ax + b) = -\frac{\cos(ax + b)}{a} + C$$

$$11. \int \cos x \, dx = \sin x + C$$

$$\int \cos(ax + b) = \frac{\sin(ax + b)}{a} + C$$

$$12. \int \frac{dx}{\cos^2 x} = \tan x + C$$

$$13. \int \frac{dx}{\sin^2 x} = -\cot x + C$$

$$14. \int \sinh x \, dx = \cosh x + C$$

$$15. \int \cosh x \, dx = \sinh x + C$$

$$16. \int \frac{dx}{\cosh^2 x} = \tanh x + C$$

$$17. \int \frac{dx}{\sinh^2 x} = -\coth x + C$$

$$18. \int \sin^2 x \, dx = \frac{1}{2}x - \frac{1}{4}\sin 2x + C$$

$$19. \int \cos^2 x \, dx = \frac{1}{2}x + \frac{1}{4}\sin 2x + C$$

**Važno!**  $20. \int \tan x \, dx = -\ln|\cos x| + C$

$$21. \int \cot x \, dx = \ln|\sin x| + C$$

$$22. \int \frac{dx}{\sin x} = \ln \left| \operatorname{tg}\left(\frac{x}{2}\right) \right| + C$$

$$23. \int \frac{dx}{\cos x} = \ln \left| \operatorname{tg}\left(\frac{x}{2} + \frac{\pi}{4}\right) \right| + C$$