

## OSNOVNA TABLICA INTEGRALA

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$$1. \quad \int dx = x + c$$

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$$2. \quad \int x^n dx = \frac{1}{n+1} x^{n+1} + c, \quad n \neq -1$$

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$$3. \quad \int \frac{1}{x} dx = \ln|x| + c$$

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$$4. \quad \int \sin x dx = -\cos x + c$$

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$$5. \quad \int \cos x dx = \sin x + c$$

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$$6. \quad \int \frac{dx}{\cos^2 x} = \operatorname{tg} x + c$$

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$$7. \quad \int \frac{dx}{\sin^2 x} = -\operatorname{ctg} x + c$$

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$$8. \quad \int a^x dx = \frac{a^x}{\ln a} + c$$

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$$9. \quad \int e^x dx = e^x + c$$

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$$10. \quad \int \frac{dx}{a^2 + x^2} = \frac{1}{a} \operatorname{arctg} \frac{x}{a} + c$$

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$$11. \quad \int \frac{dx}{a^2 - x^2} = \frac{1}{2a} \ln \left| \frac{a+x}{a-x} \right| + c$$

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$$12. \quad \int \frac{dx}{x^2 - a^2} = \frac{1}{2a} \ln \left| \frac{x-a}{x+a} \right| + c$$

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$$13. \quad \int \frac{dx}{\sqrt{a^2 - x^2}} = \arcsin \frac{x}{a} + c$$

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$$14. \quad \int \frac{dx}{\sqrt{x^2 \pm a^2}} = \ln \left| x + \sqrt{x^2 \pm a^2} \right| + c$$

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$$15. \quad \int \sqrt{a^2 - x^2} dx = \frac{1}{2} \left( x \sqrt{a^2 - x^2} + a^2 \arcsin \frac{x}{a} \right) + c$$

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