

INTEGRALNI RAČUN

ZADACI ZA VJEŽBU

INTEGRALI TRIGONOMETRIJSKIH I HIPERBOLNIH FUNKCIJA

1. Izračunajte:

1. $\int \sin x \cos 2x \cos 3x \, dx$
2. $\int_0^\pi \sin^5 x \cos^2 x \, dx$
3. $\int \frac{\sin^3 x}{\cos^5 x} \, dx$
4. $\int \frac{\cos^3 x + \cos^5 x}{\sin^2 x + \sin^4 x} \, dx$
5. $\int \frac{dx}{4 \sin x + 3 \cos x + 5}$
6. $\int \frac{dx}{\sin x(2 + \cos x - 2 \sin x)}$
7. $\int \operatorname{sh}^3 x \operatorname{ch}^4 x \, dx$
8. $\int \frac{\operatorname{sh}^2 x}{\operatorname{ch}^3 x} \, dx$
9. $\int \frac{dx}{2 \operatorname{sh} x - 5 \operatorname{ch} x}$

TRIGONOMETRIJSKE I HIPERBOLNE SUPSTITUCIJE

1. Izračunajte:

1. $\int \frac{dx}{x^2 \sqrt{1-x^2}}$
2. $\int \frac{x^3}{\sqrt{x^2+4}} \, dx$
3. $\int \frac{\sqrt{x^2-9}}{x} \, dx$
4. $\int_0^1 x^3 \sqrt{4-x^2} \, dx$
5. $\int_{\sqrt{2}/3}^{2/3} \frac{dx}{x^5 \sqrt{9x^2-1}} \, dx$
6. $\int_{1/\sqrt{3}}^{\sqrt{3}} \frac{\sqrt{1+x^2}}{x} dx$