

Matematika III – pomocný súbor 2

Základné vzorce:

- $\int x^\alpha dx = \frac{x^{\alpha+1}}{\alpha+1} + c$
- $\int \frac{1}{x} dx = \ln |x| + c$
- $\int e^x dx = e^x + c$
- $\int a^x dx = \frac{a^x}{\ln a} + c$
- $\int \sin x dx = -\cos x + c$
- $\int \cos x dx = \sin x + c$
- $\int \frac{1}{\cos^2 x} dx = \operatorname{tg} x + c$
- $\int \frac{1}{\sin^2 x} dx = -\operatorname{cotg} x + c$
- $\int \frac{f'(x)}{f(x)} dx = \ln |f(x)| + c$
- $\int \frac{1}{1+x^2} dx = \operatorname{arctg} x + c$
- $\int \frac{1}{a^2+x^2} dx = \frac{1}{a} \operatorname{arctg} \frac{x}{a} + c$
- $\int \frac{1}{1-x^2} dx = \frac{1}{2} \ln \left| \frac{1+x}{1-x} \right| + c$
- $\int \frac{1}{\sqrt{1-x^2}} dx = \operatorname{arcsin} x + c$
- $\int \frac{1}{\sqrt{a^2-x^2}} dx = \operatorname{arcsin} \frac{x}{a} + c$
- $\int \frac{1}{\sqrt{x^2+k}} dx = \ln \left| x + \sqrt{x^2+k} \right| + c$
- $\int 1 dx = x + c$