

**INTEGRALE**  
**TEMA 3**  
**INTEGRARE PRIN SCHIMBARE DE**  
**VARIABILĂ**

**CALCULAȚI**

$$\begin{aligned} & \int (2x-1)^5 dx \quad \int e^{3x+2} dx \quad \int \frac{1}{\sqrt{4-x}} dx \quad \int \sin(3-2x) dx \\ & \int \frac{1}{x\sqrt{2+1}} dx \quad \int \sqrt[3]{4x-5} dx \quad \int \frac{1}{\sin^2 \frac{x}{3}} dx \quad \int 2^{-x} dx \\ & \int \sqrt{e^x} dx \quad \int \frac{1}{x(\ln^2 x + 4)} dx \quad \int \frac{1}{x(3\ln^2 x - 9)} dx \\ & \int \frac{1}{x \cos^2(\log_2 x)} dx \quad \int \frac{e^x}{\sqrt{1-e^{2x}}} dx \quad \int 2^x \sqrt{2^x - 1} dx \\ & \int \frac{3^x}{(3^x + 1)^4} dx \quad \int \frac{\operatorname{ctg}^3 x}{\sin^2 x} dx \quad \int \frac{1}{\sqrt{1-x^2} \sqrt{\arccos^2 x - 9}} dx \\ & \int \frac{\sqrt[3]{\arctg x}}{x^2 + 1} dx \quad \int \frac{x + \operatorname{arcctg} x}{x^2 + 1} dx \quad \int x \cdot e^{x^2 + 1} dx \quad \int x \cdot \sqrt{x^2 - 4} dx \\ & \int \frac{e^{\sqrt{x}}}{\sqrt{x}} dx \quad \int \frac{\sin x}{4\cos^2 x - 9} dx \quad \int \frac{\sin 2x}{1 - \cos^4 x} dx \\ & \int \frac{\cos \sqrt{x}}{\sqrt{x}(\sin^2 \sqrt{x} + 3)} dx \quad \int \frac{x^2}{\sqrt{16 - 9x^6}} dx \quad \int \frac{x}{x^2 - 9} dx \quad \int \frac{2x + 1}{\sqrt{x^2 - 4}} dx \\ & \int \frac{2x + 3}{x^2 + 3x + 1} dx \quad \int \frac{1}{x^2 + 6x + 10} dx \quad \int \frac{1}{\sqrt{x^2 + 6x + 10}} dx \end{aligned}$$

$$\int \frac{1}{3x^2+6x+5} dx$$

$$\int \frac{2x+5}{x^2+6x+10} dx$$

$$\int \frac{x+4}{x^2+6x+10} dx$$

$$\int \frac{x \cdot e^{\sqrt{x^2+1}}}{\sqrt{x^2+1}} dx$$

$$\int f(x) \cdot g(x) dx$$

$$\int \frac{g(x)}{f(x)} dx \text{ unde } f(x)$$

este o primitivă a funcției  $g(x)$