1. POČETNI INTEGRALI (METODA DEKOMPOZICIJE)

Ovde koristimo dva osnovna pravila vezana za integrale:

$$\int kf(x)dx = k\int f(x)dx$$
$$\int (f(x) \pm g(x))dx = \int f(x)dx \pm \int g(x)dx$$

ZADACI:

$\int 2xdx$, $\int x^2 dx$, $\int (-t^4)dt$, $\int \sqrt{x}dx$, $\int \sqrt[5]{x^3}dx$, $\int \frac{dx}{\sqrt[3]{x}}$, $\int \frac{x-3}{x^2}dx$, $\int \frac{10x^8+3}{x^4}dx$, $\int x\sqrt[3]{x}dx$

$\int (x^4 - \sqrt{x} + \frac{1}{x^2})dx$, $\int (3\sin x + 4\cos x - \frac{1}{2}x - 5^x + \frac{2}{1+x^2} - \frac{4}{\sqrt{1-x^2}})dx$

$\int \frac{\cos 2x}{\sin^2 x \cos^2 x}dx$, $\int \frac{dx}{sun^2 x \cos^2 x}$, $\int tg^2 xdx$, $\int ctg^2 xdx$, $\int \sin^2 \frac{x}{2}$ dx, $\int \frac{3-2ctg^2 x}{\cos^2 x}dx$

2. METODA SMENE

Za smenu birati izraz čiji je izvod uz dx. $\int f(x)dx = \int f(g(t))g`(t)dt$; **x=g(t) je smena**

ZADACI:

$\int (5-2x)dx$, $\int (4x+3)^{\frac{1}{3}}dx$, $\int \sqrt{2x-1}dx$, $\int \frac{dy}{3y-4}$, $\int \frac{dx}{2x+6}$, $\int e^{\sin x}\cos xdx$, $\int e^{-x^2}xdx$

$\int e^{x^3}x^2 dx$, $\int 3^{5x^2}xdx$, $\int \frac{x^2}{x^3+1}dx$, $\int \frac{xdx}{x^2-7}$, $\int \frac{xdx}{\sqrt{1-x^2}}$, $\int \frac{\ln x}{x}dx$,

$\int \frac{\ln^3 y}{y}dy$, $\int \frac{dx}{x\ln x \ln(\ln x)}$, $\int \sin(2x+3)dx$, $\int x\cos(x^2+1)dx$, $\int tgxdx$, $\int \cos^2 xdx$,

$\int \sin^2 x\cos xdx$, $\int \frac{\cos x}{1+2\sin x}dx$, $\int \cos^4 xdx$, $\int tg^4 xdx$,

$\int \frac{dx}{x^2+9}$, $\int \frac{dx}{x^2+\sqrt{5}}$, $\int \frac{dx}{25+4x^2}$, $\int \frac{\cos xdx}{4+\sin^2 x}$, $\int \frac{dx}{x(1+\ln^2 x)}$, $\int \frac{x^2}{4+x^6}dx$

$\int \frac{dx}{\sqrt{9-x}}$, $\int \frac{dz}{\sqrt{25-16z^2}}$, $\int \frac{\cos xdx}{\sqrt{a^2-\sin^2 x}}dx$, $\int \frac{3^x dx}{\sqrt{25-9^x}}$, $\int \frac{xdx}{\sqrt{3-x^4}}$