

CALCULUL INTEGRALELOR DEFINITE

FOLOSIND PRIMA METODĂ DE SCHIMBARE DE VARIABILĂ

Calculați:

$$1) \int_0^1 \frac{x+1}{(x^2+2x+3)^{10}} dx$$

$$2) \int_0^1 \frac{x}{x^4+1} dx$$

$$3) \int_0^1 x \cdot \ln(x^2+1) dx$$

$$4) \int_e^{e^e} \frac{1}{x \ln^2 x} dx$$

$$5) \int_1^{e^\pi} \frac{\cos(\ln x)}{x} dx$$

$$6) \int_0^{\sin 1} \frac{1}{\sqrt{1-x^2} (\arcsin x + 3)} dx$$

$$7) \int_2^5 \frac{1}{\sqrt{5+4x-x^2}} dx$$

$$8) \int_2^3 \frac{x}{(x-1)^{10}} dx$$

$$9) \int_0^1 \frac{x^2}{1+x^6} dx$$

$$10) \int_0^{\sqrt[4]{4}} \frac{\arctg^6 x}{1+x^2} dx$$