ΜΑΘΗΜΑΤΙΚΟΣ ΛΟΓΙΣΜΟΣ 1

TUTORIAL 9

Να λυθούν τα ολοκληρώματα

$$\int\left(-x^3\ln 3+2\sqrt{x}+1\right)dx,\quad \int\left(\frac{2}{5}e^x+\cos x-\frac{1}{\sqrt{x}}\right)dx$$

$$\int\frac{\ln x}{x}dx,\quad \int\frac{x}{\sqrt{x^2+10}}dx,\quad \int\sqrt{1+4x}dx,\quad \int\frac{x}{\left(x^2+1\right)^4}dx$$

$$\int\frac{\cos^3 x}{\sin^4 x}dx,\quad \int\frac{1}{x\sqrt{4\ln x+3}}dx,\quad \int\frac{x}{x^2+1}dx,\quad \int\frac{e^x}{e^x+1}dx$$

$$\int\frac{1}{x\sqrt{x^2-1}}dx,\quad \int\frac{1}{x\ln^2 x+5x}dx,\quad \int\left(2x-x^2\right)e^{-x}dx,\quad \int\ln x\left(\ln x+2\right)dx$$

$$\int x^2\left(3\ln x+1\right)dx,\quad \int\frac{1-\ln x}{x^2}dx,\quad \int\frac{e^{-x}\left(x+1\right)}{x^2}dx,\quad \int\ln xdx$$

$$\int x^3e^xdx,\quad \int e^x\cos xdx,\quad \int\frac{x\ln\left(x+\sqrt{1+x^2}\right)}{\sqrt{1+x^2}}dx$$

$$\int\frac{1}{\left(x^2+1\right)^2}dx,\quad \int\sin^2 xdx$$