Знайти невизначені інтеграли:

Вариант 1

$\int \frac{\left(\sqrt{x}-1\right)^2-3}{x}dx.$ $\int \frac{7xdx}{\sqrt{4x^4-11}}.$ $\int x\cos 5x^2 dx.$ $\int \frac{3dx}{e^x\left(4+e^{-2x}\right)}.$ $\int \frac{4x^2dx}{\sqrt{4-5x^6}}.$

$\int \frac{2\cos xdx}{3\sin^2 x-7}.$ $\int \frac{11x^5dx}{13+10x^6}.$ $\int (1+3x)^3 dx.$ $\int \sqrt[3]{2+3\operatorname{tg} x}\cdot\frac{dx}{\cos^2 x}.$ $\int 3^{\operatorname{tg}x}\cdot\frac{3dx}{\cos^2 x}.$

Вариант 2

$\int e^x \sin e^x dx.$ $\int \frac{4+\sin 3x}{\cos^2 3x}dx.$ $\int \frac{5x^3dx}{\sqrt{9-7x^8}}.$ $\int \frac{5x^2dx}{\sqrt{12x^6+3}}.$ $\int \frac{4dx}{\left(3+e^{-x}\right)e^x}.$

$\int \frac{dx}{x\left(11\ln^2 x-16\right)}.$ $\int \frac{4dx}{x\left(16+\ln^2 x\right)}.$ $\int \left(4+\sqrt{x}\right)^2 dx.$ $\int e^x\left(4+3e^x\right)^5 dx.$ $\int x\cdot 5^{-x^2} dx.$

Вариант 3

$\int \frac{3x^4dx}{\sqrt{13-7x^{10}}}.$ $\int \frac{13x^3dx}{\sqrt{5x^8-10}}.$ $\int \frac{dx}{5^{-x}\left(3+2\cdot 5^x\right)}.$ $\int \frac{3dx}{e^x\left(e^{-2x}-9\right)}.$ $\int \frac{\operatorname{tg} e^{-x}}{e^x}dx.$

$\int \frac{3-4x^6+5x}{x^2}dx.$ $\int \frac{4\sin xdx}{13+5\cos^2 x}.$ $\int \frac{\cos^2 x}{\sin x}dx.$ $\int \frac{3dx}{\sin^2 x\sqrt[4]{5+7\operatorname{ctg} x}}.$ $\int \frac{17\sin 6xdx}{\sqrt{9-5\cos^2 3x}}.$

Вариант 4

$\int \frac{4\sin 2xdx}{9+\cos^2 x}.$ $\int \frac{3xdx}{\sqrt{10x^4-7}}.$ $\int x^2\operatorname{tg} 5x^3 dx.$ $\int \frac{7}{\operatorname{tg}^2 4x-16}\cdot\frac{dx}{\cos^2 4x}.$ $\int \frac{3xdx}{\sqrt{1-11x^4}}.$

$\int \frac{x\sqrt{x}-5x^3+12}{x^2}dx.$ $\int \frac{5\cdot 2^x dx}{3+4^x}.$ $\int \frac{2\sin xdx}{3^{-\cos x}}.$ $\int 2x\cdot\sqrt[7]{\left(3+6x^2\right)^5}dx.$ $\int \frac{\ln^7 x}{2x}dx.$

Вариант 5

$\int \frac{5x^3dx}{\sqrt{7x^8-3}}.$ $\int \frac{3xdx}{4x^2-1}.$ $\int \frac{4x^4dx}{11+5x^{10}}.$ $\int \frac{4xdx}{13x^4-5}.$ $\int \frac{5dx}{3\sin^2 7x}.$

$\int \frac{x^4-3x^2+7}{x^3}dx.$ $\int \frac{5\cdot 3^x dx}{\sqrt{4-9^x}}.$ $\int 5x^2\cdot 7^{-x^3} dx.$ $\int \frac{4dx}{x\sqrt[6]{\left(3+2\ln x\right)^5}}.$ $\int x^3\sin\left(5x^4-2\right)dx.$

Вариант 6

$\int \frac{5\cos xdx}{\sqrt{3-\sin^2 x}}.$ $\int \frac{4x^2dx}{\sqrt{5x^6+2}}.$ $\int \frac{11dx}{\sin^2 5x}.$ $\int \frac{5x^3dx}{7x^8-10}.$ $\int \frac{4x^2dx}{15+3x^6}.$

$\int \left(1+e^x\right)^3 dx.$ $\int x^2\cdot\sqrt[5]{\left(4+8x^3\right)^4}dx.$ $\int 2^{-\operatorname{ctg}x}\cdot\frac{dx}{\sin^2 x}.$ $\int \frac{2\cos 3xdx}{10+5\sin 3x}.$ $\int \cos^2 7xdx.$

Вариант 7

$\cdot\int\frac{5x^3dx}{9+11x^8}$. $\int\frac{7x^4dx}{\sqrt{3x^{10}-9}}$. $\int\frac{3dx}{\sin^2 4x}$. $\int\frac{7x^4dx}{4x^{10}-16}$. $\int\frac{3\cdot 2^x dx}{\sqrt{9-4^x}}$.

$\int\frac{\ln^2 x-\sqrt{x}+2}{x}dx$. $\int x\sqrt[3]{5+4x^2}dx$. $\int\frac{5^{\sqrt{x}}}{5\sqrt{x}}dx$. $\int\frac{x^2e^{x^3}}{4-e^{x^3}}dx$. $\int\frac{\sin\ln x}{x}dx$.

Вариант 8

$\int x\operatorname{ctg}3x^2dx$. $\int\frac{10x^3dx}{\sqrt{11x^8+3}}$. $\int\frac{5dx}{(2+\operatorname{tg}^2 x)\cos^2 x}$. $\int\frac{3e^x dx}{8e^{2x}-9}$. $\int\frac{6x^3dx}{5+8x^4}$.

$\int\frac{(\sqrt{x}-1)^2-3}{x}dx$. $\int\frac{\sin xdx}{\sqrt[3]{(1+2\cos x)^2}}$. $\int 5^{2\sin 3x}\cdot\cos 3xdx$. $\int\frac{5dx}{x\sqrt{6-\ln^2 x}}$. $\int\frac{3^{\operatorname{arctg}x}-x}{1+x^2}dx$.

Вариант 9

$\int\frac{7e^x dx}{\sqrt{e^{2x}-9}}$. $\int\frac{5x^2dx}{4x^6-11}$. $\int\frac{7x^3dx}{12+10x^8}$. $\int\frac{7dx}{\sqrt{4-\operatorname{tg}^2 x}\cdot\cos^2 x}$. $\int\frac{3x-4\sqrt{x}+5}{x^2}dx$.

$\int\sqrt[3]{5+3\operatorname{tg}2x}\cdot\frac{dx}{\cos^2 2x}$. $\int\frac{3\cdot 5^x dx}{\sqrt{12-5^x}}$. $\int e^{x+e^x}dx$. $\int\frac{5\sin 8xdx}{8+7\cos^2 4x}$. $\int\frac{dx}{\sqrt{x^2-6x+3}}$.

Вариант 10

$\int\frac{7x^2dx}{13+21x^6}$. $\int\frac{5\cos xdx}{\sin^2 x-10}$. $\int\frac{7\sin 5xdx}{\sqrt{3+2\cos 5x}}$. $\int\frac{\sqrt[3]{(7\ln x+3)^2}}{5x}dx$. $\int\frac{3e^x dx}{\sqrt{8-e^{2x}}}$.

$\int\frac{xe^x+\sqrt{x}-4}{x}dx$. $\int\frac{18\cos 2xdx}{\sqrt{3}-4\sin 2x}$. $\int 3x^2e^{4x^3-1}dx$. $\int\frac{5x^2dx}{\sqrt{x^6-11}}$. $\int 5\operatorname{tg}\frac{7}{3}xdx$.

Вариант 11

$\int\frac{5xdx}{\sqrt{13x^4-15}}$. $\int\frac{5dx}{7^{-x}(4+49^x)}$. $\int\frac{(x-2)(\sqrt{x}+1)}{x}dx$. $\int\frac{3xdx}{6x^4-7}$. $\int\frac{x+3}{\sqrt{3x^2-5}}dx$.

$\int 3\operatorname{ctg}\frac{5}{7}xdx$. $\int\frac{4dx}{x\sqrt{13+2\ln x}}$. $\int\frac{5dx}{\sqrt[3]{(9-x)^2}}$. $\int\frac{5x^2dx}{7x^3+4}$. $\int\frac{11x^2dx}{\sqrt{1-5x^6}}$.

Вариант 12

$\int\frac{7x^4dx}{\sqrt{3x^{10}+12}}$. $\int\frac{8x^4dx}{10+3x^{10}}$. $\int\frac{(2-\sqrt[3]{x^2})^2}{x}dx$. $\int\frac{5dx}{\sqrt{1+9\sqrt{x}}\cdot\sqrt{x}}$. $\int\frac{7x^5dx}{\sqrt{13-2x^{12}}}$.

$\int\frac{3dx}{\sin^2 5x}$. $\int\frac{5e^x dx}{4+e^x}$. $\int 10^{x^3-4}\cdot 5x^2dx$. $\int\frac{5x^3dx}{4x^8-23}$. $\int\frac{9dx}{(3+2\operatorname{tg}^2 5x)\cos^2 5x}$.

Вариант 13

$\int \frac{5dx}{x\sqrt{\ln^2 x-7}}$. $\int \frac{5dx}{\left(4+\sqrt{x}\right)\sqrt{x}}$. $\int (1+2x)^3 dx$. $\int \frac{7\cos 6xdx}{\sqrt{4+3\sin 6x}}$. $\int \frac{12x^2dx}{2+7x^3}$.

$\int e^{x^3+x}\left(x^2+\frac{1}{3}\right)dx$. $\int \frac{2x^2dx}{\sqrt{13-7x^6}}$. $\int 2\cos^2\frac{3x}{2}dx$. $\int \frac{11dx}{\cos^2 x\left(\operatorname{tg}^2 x-13\right)}$. $\int \frac{3-2\sin^3 2x}{\sin^2 2x}dx$.

Вариант 14

$\int \frac{11x^3dx}{\sqrt{5x^8+3}}$. $\int \left(1+5x^2\right)^3 dx$. $\int \frac{dx}{\left(\ln^2 3x+12\right)x}$. $\int \frac{\sin 2xdx}{\sqrt{3+\cos^2 x}}$. $\int \frac{3\cos 4xdx}{8\sin^2 4x-25}$.

$\int \frac{8dx}{1-\cos 4x}$. $\int \frac{7\cos 3xdx}{\sin 3x+12}$. $\int \cos^5 x\cdot\sin 2xdx$. $\int \frac{7\cos 3xdx}{\sqrt{9-\sin^2 3x}}$. $\int \frac{3^{\sqrt{x}}+1}{\sqrt{x}}dx$.

Вариант 15

$\int \frac{dx}{\sqrt{3-4x^2}}$. $\int \frac{11x^2dx}{\sqrt{12-4x^6}}$. $\int \frac{5x^2dx}{\sqrt{9x^6+7}}$. $\int \frac{9dx}{\sin^2 x\left(\operatorname{ctg}^2 x-7\right)}$. $\int \frac{7\cdot 3^x dx}{9^x+5}$.

$\int \frac{\left(\sqrt{x}+2\right)^3 dx}{x^2}$. $\int \frac{7\sin 6xdx}{\sqrt{3+5\cos^2 3x}}$. $\int \left(2-\sin^2\frac{x}{6}\right)dx$. $\int \frac{dx}{\left(3+8\operatorname{tg}7x\right)\cos^2 7x}$. $\int \frac{e^{4x}dx}{3+e^{4x}}$.

Вариант 16

$\int \operatorname{ctg}(6x+5)dx$. $\int \frac{11x^5dx}{\sqrt{1+5x^6}}$. $\int \frac{11x^2dx}{\sqrt{2-5x^6}}$. $\int \frac{3dx}{9x^2-11}$. $\int \frac{dx}{\left(3+\operatorname{ctg}^2 5x\right)\sin^2 5x}$.

$\int (\sin x-\cos x)^2 dx$. $\int \frac{3x^5dx}{\sqrt{7x^{12}+17}}$. $\int 3x\cdot 7^{3x^2+2}dx$. $\int \frac{3xdx}{12+7x^2}$. $\int \frac{2x^4-3x+7x^2e^{5x^2}}{x}dx$.

Вариант 17

$\int \frac{x^4-4}{x^2+2}dx$. $\int \frac{7xdx}{\sqrt{9x^4-17}}$. $\int \frac{4xdx}{\sqrt{4-5x^2}}$. $\int \frac{3\sin xdx}{5\cos^2 x-7}$. $\int \frac{11x^7dx}{15+7x^8}$.

$\int (3+8x)^7 dx$. $\int \frac{3dx}{e^x\left(4+e^{-2x}\right)}$. $\int \frac{xdx}{\sqrt{\left(1-x^2\right)^3}}$. $\int \sqrt[3]{2-5\operatorname{ctg}3x}\cdot\frac{dx}{\sin^2 3x}$. $\int \left(e^{2x}-e^{-2x}\right)^2 dx$.

Вариант 18

. $\int e^{2x}\cos e^{2x}dx$. $\int \frac{5x^2dx}{\sqrt{12x^6+3}}$. $\int \frac{3x^4dx}{\sqrt{9-7x^{10}}}$. $\int \frac{dx}{x(11\ln x-23)}$. $\int \frac{4dx}{\left(3+e^{-x}\right)e^x}$.

$\int \left(4+\sqrt{x}\right)^3 dx$. $\int \frac{5dx}{x\left(9+\ln^2 x\right)}$. $\int (\operatorname{tg}x+\operatorname{ctg}x)^2 dx$. $\int e^x\left(7+8e^x\right)^3 dx$. $\int \frac{e^{2x}dx}{1+e^{4x}}$.

Вариант 19

$\int \frac{8x^4dx}{\sqrt{3-17x^{10}}}$. $\int \frac{17x^3dx}{\sqrt{5x^8-15}}$. $\int \frac{5^x dx}{8\cdot(7-5^x)}$. $\int \frac{8e^{-x}dx}{e^{-2x}-25}$. $\int \operatorname{tg} e^{-2x}\cdot\frac{dx}{3e^{2x}}$.

$\int \frac{7dx}{16x^2-3}$. $\int \frac{7\cos xdx}{13+5\sin^2 x}$. $\int \frac{(x-1)(x^2+3)}{x^2}dx$. $\int \frac{23dx}{\cos^2 x\sqrt{9+13\operatorname{tg} x}}$. $\int \frac{dx}{(4x^2+1)\operatorname{arctg} 2x}$.

Вариант 20

$\int \frac{(3-x^2)^2}{x}dx$. $\int 2x\sqrt[5]{(3+4x^2)^4}dx$. $\int \frac{e^x dx}{3+4e^x}$. $\int \frac{5xdx}{\sqrt{6x^4-17}}$. $\int \frac{3\sin 2x}{25+\cos^2 x}dx$.

$\int \frac{dx}{\sin^2 4x(\operatorname{ctg}^2 4x-7)}$. $\int \frac{3x^5dx}{\sqrt{1-11x^{12}}}$. $\int \frac{x^2dx}{x^2-16}$. $\int \frac{15\cdot 2^x dx}{9+4^x}$. $\int \frac{x^2dx}{\sqrt[3]{4x^3-6}}$.

Вариант 21

$\int \frac{5x^5dx}{\sqrt{7x^6-3}}$. $\int \frac{3xdx}{9x^2+4}$. $\int \frac{4x^4dx}{11+5x^{10}}$. $\int \frac{14x^3dx}{13x^8-5}$. $\int \frac{5dx}{7\cos^2 3x}$.

$\int \frac{x^7-3x^2+7}{2x^8}dx$. $\int \frac{5\cdot 2^x dx}{\sqrt{9-4^x}}$. $\int \frac{\sqrt[3]{\operatorname{arctg}^2 3x}}{1+9x^2}dx$. $\int \frac{4dx}{x\sqrt[7]{(8+5\ln x)^5}}$. $\int e^{x^3-3x^2+5}(x^2-2x)dx$.

Вариант 22

$\int \frac{7\cos xdx}{\sqrt{3-\sin^2 x}}$. $\int \frac{4x^5dx}{\sqrt{5x^6+2}}$. $\int \frac{11xdx}{5\sin^2(3x^2+1)}$. $\int \frac{5x^3dx}{7x^8+10}$. $\int \frac{14x^2dx}{5+8x^6}$.

$\int (1+e^{3x})^3dx$. $\int x^2\cdot\sqrt[7]{(16-2x^3)^4}dx$. $\int \frac{\sin x\cos xdx}{3+\sin^2 x}$. $\int \frac{5\sin 3xdx}{10+9\cos 3x}$. $\int \frac{6\sqrt{1-x^2}}{7-7x^2}dx$.

Вариант 23

$\int \frac{5x^5dx}{9+11x^{12}}$. $\int \frac{7x^9dx}{\sqrt{13x^{10}+9}}$. $\int \frac{3\cdot 4^x}{\sqrt{9-16^x}}dx$. $\int \frac{7x^4dx}{4x^{10}+16}$. $\int \frac{e^x dx}{\sqrt[4]{3+2e^x}}$.

$\int \frac{\sin xdx}{\sqrt[5]{\cos^3 x}}$. $\int \sqrt[5]{5+9x^2}\cdot xdx$. $\int \frac{x^3+\ln x}{x}dx$. $\int \frac{x^8e^{x^9}dx}{4+e^{x^9}}$. $\int \frac{4+\sin 5x}{\cos^2 5x}dx$.

Вариант 24

$\int \frac{5dx}{\cos^2 x(2-\operatorname{tg}^2 x)}$. $\int \frac{5e^x dx}{7e^{2x}+16}$. $\int \frac{6x^8dx}{5+8x^9}$. $\int \frac{10x^3dx}{\sqrt{3+7x^8}}$. $\int \left(x-\sqrt[3]{x^2}+\frac{7}{x}\right)dx$.

$\int \frac{dx}{\sin^2 3x\cos^2 3x}$. $\int \frac{\cos xdx}{\sqrt[5]{(1+3\sin x)^4}}$. $\int \frac{3xdx}{\cos^2 x^2}$. $\int \frac{5dx}{x\sqrt{6-\ln^2 x}}$. $\int \frac{dx}{\arcsin^3 x\cdot\sqrt{1-x^2}}$.

Вариант 25

$\int\left(2^{3x-1}+\frac{3}{\sin^2 2x}\right)dx.$ $\int\frac{3\cdot 5^{2x}dx}{\sqrt{12-5^{4x}}}.$ $\int\frac{5x^4dx}{3+4x^5}.$ $\int\frac{5\sin 8xdx}{8+7\cos^2 4x}.$ $\int\frac{dx}{4x^2+12x+13}.$

$\int\frac{15x^2dx}{7x^6+14}.$ $\int\frac{17e^{2x}dx}{\sqrt{e^{4x}-9}}.$ $\int\sqrt[8]{(5+3\operatorname{tg}7x)^7}\cdot\frac{dx}{\cos^2 7x}.$ $\int\frac{7x^7dx}{3+10x^{16}}.$ $\int\left(3-2\cos^2 3x\right)dx.$

Вариант 26

$\int\frac{\cos 2xdx}{(2+3\sin 2x)^3}.$ $\int\frac{5e^xdx}{\sqrt{7-e^{2x}}}.$ $\int\frac{7x^5dx}{13+21x^6}.$ $\int\sqrt[7]{(3x-2)^5}dx.$ $\int\frac{8\cos 2xdx}{7+4\sin^2 2x}.$

$\int e^{\operatorname{arctg}3x}\cdot\frac{dx}{1+9x^2}.$ $\int\frac{15x^2dx}{\sqrt{x^6-11}}.$ $\int\frac{(3-x^3)^2}{x^4}dx.$ $\int\frac{(7\ln x+8)^2}{5x}dx.$ $\int\sin\frac{1}{x}\cdot\frac{dx}{x^2}.$

Вариант 27

$\int\frac{5x^6dx}{\sqrt{13x^{14}-15}}.$ $\int x(x^3+2)^2dx.$ $\int\frac{14dx}{x\sqrt{3+2\ln x}}.$ $\int\cos(3e^x+1)e^xdx.$ $\int\frac{3xdx}{6x^4-7}.$

$\int\frac{dx}{x\ln^5 x}.$ $\int\frac{5dx}{\sqrt[7]{(9-2x)^4}}.$ $\int e^{2x^2+\ln x}dx.$ $\int\frac{x^2-4x}{x^3-6x^2+8}dx.$ $\int\frac{dx}{\sqrt{1-4x^2}\cdot\arcsin^3 2x}.$

Вариант 28

$\int\left(\sin\frac{x}{3}-5\cos 4x\right)dx.$ $\int\frac{dx}{x\ln x\ln\ln x}.$ $\int\frac{17x^5dx}{\sqrt{18-2x^{12}}}.$ $\int\frac{dx}{\sin^2 x\cdot\sqrt[3]{ctgx}}.$ $\int\frac{5x^8dx}{4x^{18}+23}.$

$\int\left(\frac{1-\sqrt{x}}{x}\right)^2dx.$ $\int\sqrt[3]{\sin^2 2x}\cos 2xdx.$ $\int(1+e^{3x})^7e^{3x}dx.$ $\int\frac{dx}{x^2-6x+13}.$ $\int\frac{2x^5-3x^2}{1+3x^3-x^6}dx.$

Вариант 29

$\int 5(3x^2-1)^2dx.$ $\int\frac{2x^2dx}{\sqrt{1+3x^6}}.$ $\int\frac{12x^4dx}{21+7x^5}.$ $\int\frac{3-2\operatorname{ctg}^2 x}{\cos^2 x}dx.$ $\int\frac{2x^2dx}{\sqrt{13-x^6}}.$

$\int e^{\sin^2 x}\sin 2xdx.$ $\int\frac{7\cos 5xdx}{\sqrt{4+8\sin 5x}}.$ $\int\frac{(1+x^2)^2}{x(1+x^4)}dx.$ $\int\frac{x+3}{x^2+6x+14}dx.$ $\int\sqrt{2\cos x-1}\cdot\sin xdx.$

Вариант 30

$\int\frac{5\sin 2xdx}{\sqrt{9-\cos^2 x}}.$ $\int\frac{x^3dx}{(6x^4+5)^5}.$ $\int\frac{8dx}{\sin^2(7x-3)}.$ $\int\frac{7\cos 8xdx}{5\sin 8x+12}.$ $\int(1-2x^2)^3dx.$

$\int\frac{2+3x^2}{x^2(1+x^2)}dx.$ $\int\frac{dx}{x(\ln^2 3x-19)}.$ $\int\frac{\cos 2xdx}{\cos x-\sin x}.$ $\int\frac{11x^6dx}{\sqrt{5x^{14}+3}}.$ $\int\frac{x-\sqrt{\operatorname{arctg}2x}}{1+4x^2}dx.$