AŞAĞIDAKİ İNTEGRALLERİ BULUNUZ.

SORULAR	YANITLAR
1. $\int x \cdot e^{2x} dx$	$\frac{x \cdot e^{2x}}{2} - \frac{e^{2x}}{4} + C$
2. $\int (\ln x)^2 dx$	$x \ln x(\ln x - 2) + 2x + C$
3. $\int e^x \sin x dx$	$\frac{e^x}{2}(\sin x - \cos x) + C$
4. $\int e^{x+\ln x} dx$	$xe^x - e^x + C$
5. $\int x^2 e^x dx$	$x^2 e^x - 2xe^x + 2e^x + C$
6. $\int \cos(\ln x) dx$	$\frac{x \cdot (\cos(\ln x) + \sin(\ln x))}{2} + C$
7. $\int x^2 \sin x dx$	$2x \sin x + \cos x(2 - x^2) + C$
8. $\int \frac{x \arcsin x}{\sqrt{1-x^2}} dx$	$x - \sqrt{1-x^2} \arcsin x + C$
9. $\int \frac{x}{\cos^2 x} dx$	$x \tan x + \ln\lvert\cos x\rvert + C$
10. $\int x^2 \cdot \ln(3x) dx$	$\frac{x^3}{9}\left[3 \ln\lvert 3x - 1\rvert\right] + C$
11. $\int (x-1) \ln x dx$	$\frac{x^2 - 2x}{2} \ln x - \frac{1}{4}(x^2 - 4x) + C$
12. $\int (x^2 - 2x + 5) e^x dx$	$e^x(x^2 - 4x + 9) + C$
13. $\int (x^2 + x) e^x dx$	$e^x(x^2 - x + 1) + C$
14. $\int x^5 e^x dx$	$e^x(x^5 - 5x^4 + 20x^3 - 60x^2 + 20x - 120)$
15. $\int x^3 \ln x dx$	$\frac{x^4}{4} \ln x - \frac{x^4}{16} + C$

1.	$\int x^{13}\ln x dx$	$\frac{x^{14}}{14}\ln x - \frac{x^{14}}{196} + C$
2.	$\int x^{a}\ln x dx$	$\frac{x^{a+1}}{a+1}\ln x - \frac{x^{a+1}}{(a+1)^2} + C$
3.	$\int x^2 e^{-x} dx$	$-e^{-x}\left(2+2x+x^2\right) + C$
4.	$\int x\sec^2 x dx$	$x\tan x + \ln\lvert\cos x\rvert + C$
5.	$\int x\sin ax dx$	$-\frac{1}{a^2}\sin ax - \frac{x}{a}\cos ax + C$
6.	$\int x2^x dx$	$2^x\left(\frac{x}{\ln 2} - \frac{1}{\ln^2 2}\right) + C$
7.	$\int x^2\ln(2x) dx$	$\frac{x^3}{3}\left(\ln(2x) - \frac{1}{3}\right) + C$
8.	$\int x\cos nx dx$	$\frac{1}{n^2}\cos nx + \frac{x}{n}\sin nx + C$
9.	$\int \operatorname{arc\,cot} x dx$	$x\operatorname{arc\,cot} x + \frac{1}{2}\ln\left(1+x^2\right) + C$
10.	$\int \arccos 2x dx$	$x\arccos 2x - \frac{1}{2}\sqrt{1-4x^2} + C$
11.	$\int \arctan\sqrt{x} dx$	$(x+1)\arctan\sqrt{x} - \sqrt{x} + C$
12.	$\int x^2\arcsin x dx$	$\frac{x^3}{3}\arcsin x + \frac{x^2+2}{9}\sqrt{1-x^2} + C$
13.	$\int e^x\cos x dx$	$\frac{e^x}{2}(\sin x + \cos x) + C$
14.	$\int e^{\arcsin x} dx$	$\frac{e^{\arcsin x}}{2}\left(x + \sqrt{1-x^2}\right) + C$
15.	$\int \frac{\ln x}{(x+1)^2} dx$	$\frac{x}{x+1}\ln x - \ln(x+1) + C$

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1. $\int \frac{dx}{4-9x^2}$	$\frac{1}{12}\ln\left\|\frac{2+3x}{2-3x}\right\|+C$
2. $\int \frac{dx}{\sqrt{16-9x^2}}$	$\frac{1}{3}\arcsin\frac{3x}{4}+C$
3. $\int \frac{e^{2x}}{1+e^{4x}}$	$\frac{1}{2}\arctan\left(e^{2x}\right)+C$
4. $\int \frac{dx}{x^2-6x+18}$	$\frac{1}{3}\arctan\left(\frac{x-3}{3}\right)+C$
5. $\int \frac{dx}{\sqrt{4-(x+3)^2}}$	$\arcsin\left(\frac{x+3}{2}\right)+C$
6. $\int \frac{\cos x dx}{4-\sin^2 x}$	$\frac{1}{4}\ln\left(\frac{2+\sin x}{2-\sin x}\right)+C$
7. $\int \frac{5x dx}{\sqrt{1-x^4}}$	$\frac{5}{2}\arcsin\left(x^2\right)+C$
8. $\int \frac{2dx}{\sqrt{2+x-x^2}}$	$\arcsin\frac{2x-1}{3}+C$
9. $\int \frac{dx}{2x^2-2x+1}$	$\arctan(2x-1)+C$
10. $\int \frac{dx}{1+x+x^2}$	$\frac{2}{\sqrt{3}}\arctan\left(\frac{2x+1}{\sqrt{3}}\right)+C$
11. $\int \frac{dx}{3x^2-2x+4}$	$\frac{1}{\sqrt{11}}\arctan\frac{3x-1}{\sqrt{11}}+C$
12. $\int \frac{dx}{\sqrt{2-3x-4x^2}}$	$\frac{1}{2}\arcsin\left(\frac{8x+3}{\sqrt{41}}\right)+C$
13. $\int \frac{(x-1)dx}{\sqrt{1-x^2}}$	$-\sqrt{1-x^2}-\arcsin x+C$
14. $\int \frac{(3x-2)dx}{\sqrt{9-x^2}}$	$-3\sqrt{9+x^2}-2\arcsin\left(\frac{x}{3}\right)+C$
15. $\int \frac{2x+5}{x^2+2x+5}$	$\ln\left(x^2+2x+5\right)+\frac{3}{2}\arctan\left(\frac{x+1}{2}\right)+C$

1)	$\int x\sqrt{1+x}\,dx = ?$	$\left(\frac{2}{5}(1+x)^{\frac{5}{2}} - \frac{2}{3}(1+x)^{\frac{3}{2}} + C\right)$
2)	$\int\left(2\sin\frac{x}{2} - 2\right)dx = ?$	$\left(-4\cos\frac{x}{2} - 2x + C\right)$
3)	$\int \sin 3x \cdot e^{\cos 3x}dx = ?$	$\left(-\frac{1}{3}e^{\cos 3x} + C\right)$
4)	$\int x \cdot e^{2x^2}dx = ?$	$\left(\frac{1}{4}e^{2x^2} + C\right)$
5)	$\int \tan x dx = ?$	$\left(-\ln\lvert\cos x\rvert + C\right)$
6)	$\int \frac{2x-1}{x^2-x+5}dx = ?$	$\left(\ln\left(x^2-x+5\right) + C\right)$
7)	$\int x\cdot\left(3x^2-4\right)^3 dx = ?$	$\left(\frac{\left(3x^2-4\right)^4}{24} + C\right)$
8)	$\int \frac{dx}{\sqrt{3x+1}} = ?$	$\left(\frac{2}{3}\sqrt{3x+1} + C\right)$
9)	$\int 5^{3x^2-x}\cdot(6x-1)dx = ?$	$\left(\frac{5^{3x^2-x}}{\ln 5} + C\right)$
10)	$\int \frac{e^x}{3+4e^x}dx = ?$	$\left(\frac{1}{4}\ln\left(3+4e^x\right) + C\right)$
11)	$\int a^{2x}\cdot\ln a dx = ?$	$\left(\frac{a^{2x}}{2} + C\right)$
12)	$\int \frac{2^{x+1}-5^{x-1}}{10^x}dx = ?$	$\left(-\frac{2}{\ln 5}\left(\frac{1}{5}\right)^x + \frac{1}{5\ln 2}\left(\frac{1}{2}\right)^x + C\right)$
13)	$\int 2^{\tan x}\cdot\sec^2 x dx = ?$	$\left(\frac{2^{\tan x}}{\ln 2} + C\right)$
14)	$\int \frac{\sin 2x}{\sqrt{1+\sin^2 x}}dx = ?$	$\left(2\sqrt{1+\sin^2 x} + C\right)$
15)	$\int e^{\sin x + \ln(\cos x)}dx = ?$	$\left(e^{\sin x} + C\right)$
16)	$\int \tan x \sin\left(\ln(\cos x)\right)dx = ?$	$\left(\cos\left(\ln(\cos x)\right) + C\right)$