أوجد التكامل.

$$\int \frac{x^4 - 27x}{x^2 - 3x} dx$$

$$\int \frac{x - 1}{\sqrt{x} + 1} dx$$

أوجد: $\int \frac{x-\sqrt{x}}{x} dx$

أوجد: $\int \left(x+\frac{1}{x}\right)^2 dx$

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أوجد: $\int \left(\frac{x^2-2}{x^2}\right) dx$

أوجد: $\int \frac{x^2-3x}{\sqrt[3]{x}}\, dx$

أوجد: $\int \frac{x+1}{\sqrt[3]{x}+1}\,dx$

أوجد: $\int \frac{5}{\sqrt{x}\,(\sqrt{x}+1)^3}\,dx$

أوجد: $\int \frac{\left(\frac{1}{x}+4\right)^5}{x^2} dx$

أوجد: $\int \sqrt[5]{(3x+7)}\,dx$

أ:وليد

أوجد: $\int x(2x-1)^3 dx$

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

أ:وليد

$$\int (x^2-2x)(x^3-3x^2+4)^5\,dx$$

$$\int \frac{x^2}{\sqrt[3]{4+x^3}}\,dx$$

أوجد: $\int x^5 \sqrt{3+x^2}\, dx$

$$\int \frac{x}{\sqrt{1+3x}}\, dx$$

$$\int x^2\sqrt{x-1}\,dx$$

$$\int x^3\sqrt{x^2-2}\,dx$$

أوجد:

$$\int (x^2 + \cos 2x)\,dx$$

$$\int x \sec^2(x^2 + 2)\,dx$$

$$\int x^2 \cdot \sin(x^3 - 1)\,dx$$

$$\int \sin^3 x \cdot \cos x\,dx$$

$$\int \frac{dx}{\sin^2 x}$$

$$\int \cos^3(2x-3)\cdot\sin(2x-3)dx$$

$$\int \frac{\sin x}{\cos^3 x}\,dx$$

$$\int (3+\sin 2x)^5 \cos 2x \, dx$$

$$\int \sqrt{1+\sin x} \cos x \, dx$$

$$\int \left(\frac{-1}{x^2} + 5\sin 3x \right) dx$$

$$\int \frac{\sin x}{\cos^3 x}\, dx$$

$$\int \csc^2 x \cdot \cot x \, dx$$

$$\int \csc^5 x \cot x \, dx$$

$$\int \sqrt{\tan x} \sec^2 x \, dx$$

$$\int \frac{dx}{(\sin^2 x)\sqrt{1+\cot x}}$$

$$\int \frac{dx}{(\cos^2 x)\sqrt{1+\tan x}}$$

أوجد $\frac{dy}{dx}$.

$y = 3e^{\frac{x}{5}}$	$y = \ln\left(\frac{1}{x^2}\right)$
$y = e^{2\sqrt{x}+3}$	$y = \ln(x^3)$
$y = e^{csc x}$	$y = \ln\left(\frac{10}{x}\right)$
$y = e^{x^2-x+1}$	$y = \ln(2-\cos x)$
$y = 8^{\tan x}$	$g(x) = \ln\frac{1}{2x+1}$
$y = 5^{\sqrt{x+1}}$	$y = \ln(\ln x)$
$f(x) = 3^{\frac{1}{x}}$	

أوجد التكامل غير المحدد

$\int e^{0.1x}\,dx$

$\int \left(e^{0.5x}+\frac{0.5}{x}\right)dx$

$\int \frac{1}{x^2}\,e^{\frac{1}{x}}\,dx$

$\int \frac{x+1}{x^2+2x+5}\,dx$

$\int (2x+1)\,e^{x^2+x+4}\,dx$

$\int \frac{e^x}{e^x+1}\,dx$

$\int \frac{x^2+1}{x}\,dx$

$\int \frac{3t^2-6t}{t^3-3t^2+8}\,dt$

$$\int \left(e^{3x} + \frac{4}{2x-1}\right) dx$$

أوجد: $\int \cot x \, dx$	$\int \tan x \, dx$

$$\int (2\tan x - \csc^2 x) dx$$

$$\int \frac{e^{2x}+x}{e^{2x}+x^2+3}\,dx$$

$$\int \frac{1}{\sqrt{x}}e^{\sqrt{x}}\,dx$$

أوجد التكامل.

$$\int x\sin(5x)\,dx$$

$$\int x\cos(3x)\,dx$$

$$\int \ln \sqrt[4]{x}\, dx$$

$$\int x^2 \ln x^2\, dx$$

$$\int 3x\, e^{2x+1}\, dx$$

$$\int (x^2 - 2x)\cos x \, dx$$

$$\int x^2 \, e^{x+1} \, dx$$

$$\int x^2 e^{2x-1}\, dx$$

لتكن الدالة f : $f(x) = \dfrac{5x-1}{x^2-2x-15}$

فأوجد: الكسور الجزئية $\int f(x)\,dx$

أ:وليد

أوجد:

$$\int \frac{-x^2+2x+4}{x^3-4x^2+4x}dx$$

أوجد:

$$\int \frac{x^2 - 3x + 7}{x^2 - 4x + 4} dx$$

أوجد: $\int_{\frac{\pi}{6}}^{\frac{\pi}{3}} \sin 2x \cos 2x \, dx$

$\int_{2}^{5} x\sqrt{x-1} \, dx$

أوجد: $\int_{-2}^{0} \frac{x}{e^x} dx$

$\int_{-5}^{5} \sqrt{25 - x^2}\, dx$

أوجد: $\int_{0}^{\frac{\pi}{4}} x \sec^2 x\, dx$

$$\int_1^5 \frac{2x+8}{x^2+4x+3}dx$$

أ:وليد