সৃষ্টি কলেজ অব টাঙ্গাইল

প্রয়োজনীয় সূত্র - যোগজীকরণ/অন্তরীকরণ

যোগজীকরণের ফলাফলের সাথে অবশ্যই c যুক্ত করবে।

$\frac{d}{dx}(x^n) = nx^{n-1}$	$\int x^n dx = \frac{x^{n+1}}{n+1}$
$\frac{d}{dx}(e^{mx}) = me^{mx}$	$\int e^{mx} dx = \frac{e^{mx}}{m}$
$\frac{d}{dx}(a^x) = a^x lna$	$\int a^x dx = \frac{a^x}{lna}$
$\frac{d}{dx}(lnx) = \frac{1}{x}$	$\int \frac{1}{x} dx = lnx$
$\frac{d}{dx}(sinx) = cosx$	$\int cosx\, dx = sinx$
$\frac{d}{dx}(cosx) = -sinx$	$\int sinx\, dx = -cosx$
$\frac{d}{dx}(tanx) = \sec^2 x$	$\int \sec^2 x\, dx = tanx$
$\frac{d}{dx}(cotx) = -cosec^2 x$	$\int cosec^2 x\, dx = -cotx$
$\frac{d}{dx}(secx) = secx\, tanx$	$\int secx\, tanx\, dx = secx$
$\frac{d}{dx}(cosecx) = -cosecx\, cotx$	$\int cosecx\, cotx\, dx = -cosecx$
$\frac{d}{dx}(\sin^{-1} x) = \frac{1}{\sqrt{1-x^2}}$	$\int \frac{dx}{\sqrt{1-x^2}} = \sin^{-1} x$
$\frac{d}{dx}(\cos^{-1} x) = -\frac{1}{\sqrt{1-x^2}}$	$\int -\frac{dx}{\sqrt{1-x^2}} = \cos^{-1} x$
$\frac{d}{dx}\tan^{-1} x = \frac{1}{1+x^2}$	$\int \frac{1}{1+x^2} dx = \tan^{-1} x$
$\frac{d}{dx}\cot^{-1} x = -\frac{1}{1+x^2}$	$\int \frac{-1}{1=x^2} dx = \cot^{-1} x$
$\frac{d}{dx}\sec^{-1} x = \frac{1}{x\sqrt{x^2-1}}$	$\int \frac{dx}{x\sqrt{x^2-1}} = \sec^{-1} x$
$\frac{d}{dx} cosec^{-1} x = \frac{-1}{x\sqrt{x^2-1}}$	$\int \frac{-dx}{x\sqrt{x^2-1}} = cosec^{-1} x$
$\int uvdx = u\int vdx - \int \{\frac{d}{dx}u \int vdx\}\, dx$	
$\int \frac{dx}{a^2-x^2} = \frac{1}{2a}\ln\left\lvert\frac{a+x}{a-x}\right\rvert$	$\int \frac{dx}{x^2-a^2} = \frac{1}{2a}\left\lvert\frac{x-a}{x+a}\right\rvert$
$\int \frac{dx}{\sqrt{x^2-a^2}} = \ln\left\lvert x+\sqrt{x^2-a^2}\right\rvert + c$	
$\int \frac{dx}{\sqrt{x^2+a^2}} = \ln\left\lvert x+\sqrt{x^2+a^2}\right\rvert$	

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