Alapintegrálok táblázata

$\int k\,dx = kx + c$	$\int x^n dx = \frac{x^{n+1}}{n+1} + c, ha\ n \neq -1$
$\int e^x dx = e^x + c$	$\int a^x dx = \frac{a^x}{lna} + c\ , ahol\ a > 0$ és $a \neq 1$
$\int \frac{1}{x} dx = \ln\lvert x\rvert + c$	
$\int sinx\,dx = -cosx + c$	$\int cosx\,dx = sinx + c$
$\int \frac{1}{sin^2x} dx = -ctgx + c$	$\int \frac{1}{cos^2x} dx = tgx + c$
$\int \frac{1}{\sqrt{1-x^2}} dx = arcsinx + c$	$\int \frac{1}{1+x^2} dx = arctgx + c$
$\int shx\,dx = chx + c$	$\int chx\,dx = shx + c$
$\int \frac{1}{sh^2x} dx = -cthx + c$	$\int \frac{1}{ch^2x} dx = thx + c$
$\int \frac{1}{\sqrt{x^2+1}} dx = arshx + c$ $= \ln\left(x + \sqrt{x^2+1}\right) + c$	$\int \frac{1}{\sqrt{x^2-1}} dx = archx + c$ $= \pm\ln\left(x + \sqrt{x^2-1}\right) + c$
$\int \frac{1}{1-x^2} dx = arthx + c$ $= \frac{1}{2} ln \frac{1+x}{1-x} + c, ha\ \lvert x\rvert < 1$	$\int \frac{1}{1-x^2} dx = arcthx + c$ $= \frac{1}{2} ln \frac{x+1}{x-1} + c, ha\ \lvert x\rvert > 1$

Fontos képletek

$\int c \cdot f(x)\,dx = c \cdot \int f(x)\,dx$	$\int f(x) + g(x) dx = \int f(x)\,dx + \int g(x)\,dx$
$\int f(g) \cdot g' = F(g)\,, ahol\ F = \int f$	
$\int f(ax+b)\,dx = \frac{F(ax+b)}{a} + c$ $\int f^n(x) \cdot f'(x) dx = \frac{f^{n+1}(x)}{n+1} + c, ha\ n \neq -1$	$\int \frac{f'(x)}{f(x)} dx = \ln\lvert f(x)\rvert + c$
$\int f' \cdot g = f \cdot g - \int f \cdot g'$	
$\int_a^b f' \cdot g = [f \cdot g]_a^b - \int_a^b f \cdot g'$	

NEWTON-LEIBNIZ FORMULA: $\int_a^b f(x)dx = F(b) - F(a)$

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$\int \frac{1}{\sqrt{x^2+1}} dx = arshx + c = \ln\left(x + \sqrt{x^2+1}\right) + c$	$\int \frac{1}{\sqrt{x^2-1}} dx = archx + c = \pm\ln\left(x + \sqrt{x^2-1}\right) + c$
$\int \frac{1}{1-x^2} dx = arthx + c = \frac{1}{2} ln \frac{1+x}{1-x} + c, ha\ \|x\| < 1$	$\int \frac{1}{1-x^2} dx = arcthx + c = \frac{1}{2} ln \frac{x+1}{x-1} + c, ha\ \|x\| > 1$

Fontos képletek

$\int c \cdot f(x)\,dx = c \cdot \int f(x)\,dx$	$\int f(x) + g(x)dx = \int f(x)\,dx + \int g(x)\,dx$
$\int f(g) \cdot g' = F(g)\,, ahol\ F = \int f$	
$\int f(ax+b)\,dx = \frac{F(ax+b)}{a} + c$ $\int f^n(x) \cdot f'(x)dx = \frac{f^{n+1}(x)}{n+1} + c, ha\ n \neq -1$	$\int \frac{f'(x)}{f(x)} dx = \ln\|f(x)\|$+c
$\int f' \cdot g = f \cdot g - \int f \cdot g'$	
$\int_a^b f' \cdot g = [f \cdot g]_a^b - \int_a^b f \cdot g'$	

NEWTON-LEIBNIZ FORMULA: $\int_a^b f(x)dx = F(b) - F(a)$