

$\int dx = x + C$	$\int kdx = kx + C$
$\int xdx = \frac{x^2}{2} + C$	$\int x^2 dx = \frac{x^3}{3} + C$
$\int x^n dx = \frac{x^{n+1}}{n+1} + C, (n \neq -1)$	$\int u'u^n dx = \frac{u^{n+1}}{n+1} + C, (n \neq -1)$
$\int \frac{1}{x} dx = \ln x + C$	$\int \frac{u'}{u} dx = \ln u + C$
$\int \frac{1}{x+a} dx = \ln x+a + C$	$\int \frac{u'}{u+a} dx = \ln u+a + C$
$\int e^x dx = e^x + C$	$\int u'e^u dx = e^u + C$
$\int a^x dx = \frac{a^x}{\ln a} + C, (a > 0, a \neq 1)$	$\int u'a^u dx = \frac{a^u}{\ln a} + C, (a > 0, a \neq 1)$
$\int \sin x dx = -\cos x + C$	$\int u'\sin u dx = -\cos u + C$
$\int \cos x dx = \sin x + C$	$\int u'\cos u dx = \sin u + C$
$\int \frac{1}{\cos^2 x} dx = \tan x + C$	$\int \frac{u'}{\cos^2 u} dx = \tan u + C$
$\int (1 + \tan^2 x) dx = \tan x + C$	$\int u'(1 + \tan^2 u) dx = \tan u + C$
$\int \frac{1}{\sin^2 x} dx = -\cotan x + C$	$\int \frac{u'}{\sin^2 u} dx = -\cotan u + C$
$\int \frac{1}{\sqrt{1-x^2}} dx = \arcsin x + C$	$\int \frac{u'}{\sqrt{1-u^2}} dx = \arcsin u + C$
$\int \frac{1}{1+x^2} dx = \arctan x + C$	$\int \frac{u'}{1+u^2} dx = \arctan u + C$
$\int \frac{1}{a^2+x^2} dx = \frac{1}{a} \arctan \frac{x}{a} + C$	$\int \frac{u'}{a^2+u^2} dx = \frac{1}{a} \arctan \frac{u}{a} + C$
Addition/subtraction integral	$\int (u \pm v) dx = \int u dx \pm \int v dx$
Integration by parts	$\int u dv = uv - \int v du$
Definite integral	$\int_a^b f(x) dx = F(x) \Big _a^b = F(b) - F(a)$

Where: u, v are functions of x ; a, k, n, C are constants.