

Primitives usuelles

$f(x)$	$\int^x f(u)du$	Précisions
x^a $1/x$	$\frac{x^{a+1}}{a+1}$ $\ln x $	$a \in]-\infty, -1[\cup]1, \infty[$
e^{ax}	$\frac{e^{ax}}{a}$	$a \in \mathbb{C}^*$
\cos \sin \tan \cotan^1	\sin $-\cos$ $-\ln \cos(x) $ $\ln \sin(x) $	
$1/\cos$ $1/\sin$	$\ln \tan(x/2 + \pi/4) $ $\ln \tan(x/2) $	
$1/\cos^2$ $1/\sin^2$ $1/(\sin(x)\cos(x))$ \tan^2	\tan $-1/\tan$ $\ln \tan(x) $ $\tan x - x$	
ch sh $th(x)$ $coth(x)$ $1/sh(x)$ $1/ch(x)$ $th(x)^2$ $1/(sh(x)ch(x))$ $1/ch^2$ $1/sh^2$	sh ch $\ln ch(x)$ $\ln sh(x) $ $\ln th(x/2) $ $2\text{Arctan}(e^x)$ $x - th(x)$ $\ln th(x) $ th $-\coth$	
$1/(x^2 + a^2)$ $1/(x^2 - a^2)$ $1/(a^2 - x^2)$	$\frac{1}{a} \arctan(x/a)$ $\frac{1}{2a} \ln \frac{x+a}{x-a} $ $\frac{1}{a} \text{argth}(x/a)$	$a \neq 0$ $a \neq 0$ $a \neq 0, x < a$
$1/\sqrt{x^2 + a}$ $1/\sqrt{a^2 - x^2}$	$\ln x + \sqrt{x^2 + a} $ ou $\text{argsh}(x/\sqrt{a})$ ou $\text{argch}(-x/\sqrt{-a})$ si $x > \sqrt{-a}$ ou $-\text{argch}(x/\sqrt{-a})$ si $x < \sqrt{-a}$ $\arcsin(x/ a)$	$a > 0$ $a < 0$ $a < 0$ $a \neq 0$
$\frac{1}{(x^2+a)^{3/2}}$ $\frac{1}{(a-x^2)^{3/2}}$	$\frac{x}{a\sqrt{x^2+a}}$ $\frac{x}{a\sqrt{a-x^2}}$	$a \neq 0$ $a \neq 0$
$f_n(x) = 1/(1+x^2)^n$ $f_n(x) = 1/(1-x^2)^n$	$2n \int f_{n+1}(x) = \frac{x}{(1+x^2)^n} + (2n-1) \int f_n(x)$ $2n \int f_{n+1}(x) = \frac{x}{(1-x^2)^n} + (2n-1) \int f_n(x)$	