

Tableau des primitives usuelles

Fonction f	Intervalle I	Primitives F
$f(x) = a$	$\mathbb{R}$	$F(x) = ax + k$
$f(x) = x^n \quad ; \quad n \neq -1$	$\mathbb{R}$	$F(x) = \frac{x^{n+1}}{n+1} + k$
$f(x) = \frac{1}{x}$	$]0; +\infty[$	$F(x) = \ln x + k$
$f(x) = e^x$	$\mathbb{R}$	$F(x) = e^x + k$
$f(x) = \sin x$	$\mathbb{R}$	$F(x) = -\cos x + k$
$f(x) = \cos x$	$\mathbb{R}$	$F(x) = \sin x + k$
$f(x) = \frac{1}{\cos^2 x} = 1 + \tan^2 x$	$]-\frac{\pi}{2} + n\pi; \frac{\pi}{2} + n\pi[\quad ; \quad n \in \mathbb{Z}$	$F(x) = \tan x + k$
$f(x) = \frac{1}{1+x^2}$	$\mathbb{R}$	$F(x) = \text{Arc tan } x + k$

Formules générales

Règles de base	Fonction	Primitives
	$f(x) + g(x)$	$F(x) + G(x) + k$
	$k \times f(x)$	$k \times F(x) + k$

Fonction f	Primitives F
$f(x) = g(ax + b) \quad a, b \in \mathbb{R} ; a \neq 0$	$F(x) = \frac{1}{a} G(ax + b) + k ; G \text{ primitive de } g$
$f(x) = u'(x) \times g(u(x))$	$F(x) = G(u(x)) + k$
$f(x) = u'(x)[u(x)]^n \quad ; \quad n \neq 0 \text{ et } n \neq -1$	$F(x) = \frac{[u(x)]^{n+1}}{n+1} + k$
$f(x) = \frac{u'(x)}{[u(x)]^n} \quad ; \quad n > 0 \text{ et } n \neq 1$	$F(x) = \frac{-1}{(n-1)[u(x)]^{n-1}} + k$
$f(x) = \frac{u'(x)}{u(x)}$ sur tout intervalle où $u(x) > 0$	$F(x) = \ln[u(x)] + k$
$f(x) = \frac{u'(x)}{\sqrt{u(x)}}$	$F(x) = 2\sqrt{u(x)} + k$
$f(x) = u'(x) \times e^{u(x)}$	$F(x) = e^{u(x)} + k$
$f(x) = u'(x) \sin(u(x))$	$F(x) = -\cos(u(x)) + k$
$f(x) = u'(x) \cos(u(x))$	$F(x) = \sin(u(x)) + k$
$f(x) = \frac{u'(x)}{1 + u(x)^2}$	$F(x) = \text{Arctan}(u(x)) + k$