# Formulaire de primitives

| $f(x)$ | $F(x)$ |
|---|---|
| $1$ | $\int 1\,dx = x + C$ |
| $x^n$ | $\int x^n\,dx = \frac{x^{n+1}}{n+1} + C \ (n \neq -1)$ |
| $\frac{1}{x}$ | $\int \frac{1}{x}\,dx = \ln\lvert x\rvert + C$ |
| $\sin x$ | $\int \sin x\,dx = -\cos x + C$ |
| $\cos x$ | $\int \cos x\,dx = \sin x + C$ |
| $\frac{1}{\cos^2 x}$ | $\int \frac{1}{\cos^2 x}\,dx = \tan x + C$ |
| $-\frac{1}{\sin^2 x}$ | $\int -\frac{1}{\sin^2 x}\,dx = \cot x + C$ |
| $e^x$ | $\int e^x\,dx = e^x + C$ |
| $a^x$ | $\int a^x\,dx = \frac{a^x}{\ln a} + C$ |
| $\frac{1}{\sqrt{1-x^2}}$ | $\int \frac{1}{\sqrt{1-x^2}}\,dx = \arcsin x + C$ |
| | $\int \frac{1}{\sqrt{1-x^2}}\,dx = -\arccos x + C$ |
| $\frac{1}{x^2+1}$ | $\int \frac{1}{x^2+1}\,dx = \arctan x$ |

| $f\left(g(x)\right)$ | $F(x)$ |
|---|---|
| $g'(x).\left[g(x)\right]^n$ | $\int g'(x).\left[g(x)\right]^n\,dx = \frac{g(x)^{n+1}}{n+1} + C \ (n \neq -1)$ |
| $\frac{g'(x)}{g(x)}$ | $\int \frac{g'(x)}{g(x)}\,dx = \ln\lvert g(x)\rvert + C$ |
| $g'(x).\sin g(x)$ | $\int g'(x).\sin g(x)\,dx = -\cos g(x) + C$ |
| $g'(x).\cos g(x)$ | $\int g'(x).\cos g(x)\,dx = \sin g(x) + C$ |
| $\frac{g'(x)}{\cos^2 g(x)}$ | $\int \frac{g'(x)}{\cos^2 g(x)}\,dx = \tan g(x) + C$ |
| $-\frac{g'(x)}{\sin^2 g(x)}$ | $\int -\frac{g'(x)}{\sin^2 g(x)}\,dx = \cot g(x) + C$ |
| $g'(x).e^{g(x)}$ | $\int g'(x).e^{g(x)}\,dx = e^{g(x)} + C$ |
| $g'(x).a^{g(x)}$ | $\int g'(x).a^{g(x)}\,dx = \frac{a^{g(x)}}{\ln a} + C$ |
| $\frac{g'(x)}{\sqrt{1-g(x)^2}}$ | $\int \frac{g'(x)}{\sqrt{1-g(x)^2}}\,dx = \arcsin g(x) + C$ |
| | $\int \frac{g'(x)}{\sqrt{1-g(x)^2}}\,dx = -\arccos g(x) + C$ |
| $\frac{g'(x)}{g(x)^2+1}$ | $\int \frac{g'(x)}{g(x)^2+1}\,dx = \arctan g(x) + C$ |