1 Formules des primitives

C désigne une constante arbitraire. Les intervalles sont à préciser.

$$\int e^{\alpha t}\, dt = \frac{e^{\alpha t}}{\alpha} + C \quad (\alpha \in \mathbb{C}^*)$$

$$\int t^\alpha\, dt = \frac{t^{\alpha+1}}{\alpha+1} + C \quad (\alpha \neq -1)$$

$$\int \frac{dt}{1+t^2} = \arctan t + C$$

$$\int \frac{dt}{\sqrt{1-t^2}} = \arcsin t + C$$

$$\int \cos t\, dt = \sin t + C$$

$$\int \sin t\, dt = -\cos t + C$$

$$\int \frac{dt}{\cos^2 t} = \tan t + C$$

$$\int \frac{dt}{\sin^2 t} = -\cotan t + C$$

$$\int \frac{dt}{\cos t} = \ln\left|\tan\left(\frac{t}{2}+\frac{\pi}{4}\right)\right| + C$$

$$\int \frac{dt}{\sin t} = \ln\left|\tan\frac{t}{2}\right| + C$$

$$\int \tan t\, dt = -\ln|\cos t| + C$$

$$\int \cotan t\, dt = \ln|\sin t| + C$$

$$\int \frac{dt}{t} = \ln|t| + C$$

$$\int \frac{dt}{1-t^2} = \frac{1}{2}\ln\left|\frac{1+t}{1-t}\right| + C$$

$$\int \frac{dt}{\sqrt{t^2+\alpha}} = \ln\left|t+\sqrt{t^2+\alpha}\right| + C$$

$$\int \mathrm{ch}\, t\, dt = \mathrm{sh}\, t + C$$

$$\int \mathrm{sh}\, t\, dt = \mathrm{ch}\, t + C$$

$$\int \frac{dt}{\mathrm{ch}^2 t} = \mathrm{th}\, t + C$$

$$\int \frac{dt}{\mathrm{sh}^2 t} = -\coth t + C$$

$$\int \frac{dt}{\mathrm{ch}\, t} = 2\arctan e^t + C$$

$$\int \frac{dt}{\mathrm{sh}\, t} = \ln\left|\mathrm{th}\,\frac{t}{2}\right| + C$$

$$\int \mathrm{th}\, t\, dt = \ln(\mathrm{ch}\, t) + C$$

$$\int \coth t\, dt = \ln|\mathrm{sh}\, t| + C$$