Primitives usuelles

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$\int \frac{dt}{\text{ch}\ t} = 2\text{Arctan}\ e^t + C$$

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

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

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