Integrali indefiniti

$$\int x^n dx = \frac{x^{n+1}}{n+1} + c \quad con \quad \alpha \neq -1$$

$$\int dx = x + c$$

$$\int \frac{1}{x} dx = \ln|x| + c$$

$$\int e^x dx = e^x + c$$

$$\int a^x dx = \frac{1}{\ln a} \cdot a^x + c \quad con \quad a > 0$$

$$\int \sin x \ dx = -\cos x + c$$

$$\int \cos x \ dx = \sin x + c$$

$$\int \tan x \ dx = -\ln|\cos x| + c$$

$$\int \frac{1}{\cos^2 x} dx = \tan x + c$$

$$\int \frac{1}{\sin^2 x} dx = -\cot x + c$$

$$\int \frac{1}{\sqrt{1-x^2}} dx = \arcsin x + c = -\arccos x + c$$

$$\int \frac{1}{1+x^2} dx = \arctan x + c = -\text{arccot} \ x + c$$

$$\int [f(x)]^n f'(x) \, dx = \frac{[f(x)]^{n+1}}{n+1} + c$$

$$\int \frac{f'(x)}{f(x)} dx = \ln|f(x)| + c$$

$$\int f'(x) \cdot e^{f(x)} dx = e^{f(x)} + c$$

$$\int f'(x) \cdot a^{f(x)} dx = \frac{a^{f(x)}}{\ln a} + c \quad con \quad a > 0$$

$$\int f'(x) \cdot \sin f(x) \, dx = -\cos f(x) + c$$

$$\int f'(x) \cdot \cos f(x) \, dx = \sin f(x) + c$$

$$\int \frac{f'(x)}{\cos^2 f(x)} dx = \tan f(x) + c$$

$$\int \frac{f'(x)}{\sin^2 f(x)} dx = -\cot f(x) + c$$

$$\int \frac{f'(x)}{\sqrt{1-[f(x)]^2}} dx = \arcsin f(x) + c = -\arccos f(x) + c$$

$$\int \frac{f'(x)}{1+[f(x)]^2} dx = \arctan f(x) + c = -\text{arccot} \ f(x) + c$$

Differenziale

$$d f(x) = f'(x) \, dx$$

Integrazione per parti

$$\int f(x) g'(x) \, dx = f(x) g(x) - \int f'(x) g(x) \, dx$$