

| $f(x)$ | $\int f(x)dx$ |
|-------------------------------------|---|
| x^n con $(n \neq -1)$ | $\frac{x^{n+1}}{n+1} + c$ |
| $\frac{1}{x}$ | $\log_e x + c$ |
| $\frac{1}{a^2 + x^2}$ | $\frac{1}{a} \cdot \operatorname{arctg} \frac{x}{a} + c$ |
| $\frac{1}{x^2 - a^2}$ | $\frac{1}{2a} \cdot \log_e \left \frac{x-a}{x+a} \right + c$ |
| $\frac{1}{a^2 - x^2}$ | $\frac{1}{2a} \cdot \log_e \left \frac{a+x}{a-x} \right + c$ |
| $\frac{1}{\sqrt{x^2 + a}}$ | $\log_e \left x + \sqrt{x^2 + a} \right + c$ |
| $\frac{1}{\sqrt{a^2 - x^2}}$ | $\operatorname{arcsen} \frac{x}{a} + c = -\operatorname{arccos} \frac{x}{a} + c$ |
| e^x | $e^x + c$ |
| a^x | $\frac{a^x}{\log_e(a)} + c$ |
| $\log_e(x)$ | $x \cdot \log_e(x) - x + c$ |
| $\log_a(x)$ | $\frac{1}{\log_e(a)} \cdot (x \cdot \log_e(x) - x) + c$ |
| $\operatorname{sen}(x)$ | $-\cos(x) + c$ |
| $\operatorname{cos}(x)$ | $\operatorname{sen}(x) + c$ |
| $\operatorname{tg}(x)$ | $\log_e \left(1 + \operatorname{tg}^2 \left(\frac{x}{2} \right) \right) - \log_e \left 1 - \operatorname{tg}^2 \left(\frac{x}{2} \right) \right + c$ |
| $\operatorname{ctg}(x)$ | $\log_e \left \operatorname{tg} \left(\frac{x}{2} \right) \right - \log_e \left(1 + \operatorname{tg}^2 \left(\frac{x}{2} \right) \right) + c$ |
| $\frac{1}{\operatorname{sen}^2(x)}$ | $-\operatorname{ctg}(x) + c$ |
| $\frac{1}{\operatorname{cos}^2(x)}$ | $\operatorname{tg}(x) + c$ |

| $f(x)$ | $\int f(x)dx$ |
|--------------------------------------|--|
| $\frac{1}{\operatorname{sen}(x)}$ | $\log_e \left \operatorname{tg} \left(\frac{x}{2} \right) \right + c$ |
| $\frac{1}{\operatorname{cos}(x)}$ | $\log_e \left \operatorname{tg} \left(\frac{x}{2} + \frac{\pi}{4} \right) \right + c$ |
| $\operatorname{arcsen}(x)$ | $x \cdot \operatorname{arcsen}(x) + \sqrt{1-x^2} + c$ |
| $\operatorname{ar\,cos}(x)$ | $x \cdot \operatorname{ar\,cos}(x) - \sqrt{1-x^2} + c$ |
| $\operatorname{arctg}(x)$ | $x \cdot \operatorname{arctg}(x) - \frac{1}{2} \log_e (1+x^2) + c$ |
| $\operatorname{senh}(x)$ | $\operatorname{cosh}(x) + c$ |
| $\operatorname{cosh}(x)$ | $\operatorname{senh}(x) + c$ |
| $\frac{1}{\operatorname{senh}^2(x)}$ | $-\operatorname{ctgh}(x) + c$ |
| $\frac{1}{\operatorname{cosh}^2(x)}$ | $\operatorname{tgh}(x) + c$ |

Regole di integrazione

$$\int k \cdot f(x) dx = k \cdot \int f(x) dx$$

$$\int [f(x) \pm g(x)] dx = \int f(x) dx \pm \int g(x) dx$$

$$\int [f(x) \cdot g'(x)] dx = f(x) \cdot g(x) - \int [f'(x) \cdot g(x)] dx$$

$$\int \frac{f'(x)}{f(x)} dx = \log_e [f(x)] + c$$

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

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