Tabela de Primitivas

Seja f uma função diferenciável.

1. $\displaystyle\int f'(x)(f(x))^p\,dx = \frac{(f(x))^{p+1}}{p+1} + C\,, \quad C \in \mathbb{R}, \quad p \in \mathbb{R}\setminus\{-1\}$
2. $\displaystyle\int \frac{f'(x)}{f(x)}\,dx = \ln|f(x)| + C\,, \quad C \in \mathbb{R}$
3. $\displaystyle\int f'(x)e^{f(x)}\,dx = e^{f(x)} + C\,, \quad C \in \mathbb{R}$
4. $\displaystyle\int f'(x)a^{f(x)}\,dx = \frac{a^{f(x)}}{\ln a} + C\,, \quad C \in \mathbb{R}, \quad a \in \mathbb{R}^+\setminus\{1\}$
5. $\displaystyle\int f'(x)\,\mathrm{sen}(f(x))\,dx = -\cos(f(x)) + C\,, \quad |C \in \mathbb{R}$
6. $\displaystyle\int f'(x)\cos(f(x))\,dx = \mathrm{sen}(f(x)) + C\,, \quad C \in \mathbb{R}$

7. $\displaystyle\int f'(x)\sec^2(f(x))\,dx = \mathrm{tg}(f(x)) + C\,, \quad C \in \mathbb{R}$
8. $\displaystyle\int f'(x)\,\mathrm{cosec}^2(f(x))\,dx = -\mathrm{cotg}(f(x)) + C\,, \quad C \in \mathbb{R}$
9. $\displaystyle\int \frac{f'(x)}{\sqrt{1-(f(x))^2}}\,dx = \mathrm{arcsen}(f(x)) + C\,, \quad C \in \mathbb{R}$
10. $\displaystyle\int \frac{f'(x)}{1+(f(x))^2}\,dx = \mathrm{arctg}(f(x)) + C\,, \quad C \in \mathbb{R}$
11. $\displaystyle\int f'(x)\sec(f(x))\,\mathrm{tg}(f(x))\,dx = \sec(f(x)) + C\,, \quad C \in \mathbb{R}$
12. $\displaystyle\int f'(x)\,\mathrm{cosec}(f(x))\,\mathrm{cotg}(f(x))\,dx = -\mathrm{cosec}(f(x)) + C, C \in \mathbb{R}$