Tabla de primitivas

1. $\int \frac{d}{dx}[f(x)]dx = f(x) + C$
2. $\int x^n dx = \frac{x^{n+1}}{n+1} + C \ (n \neq -1)$
3. $\int \frac{dx}{x} = \ln|x| + C$
4. $\int e^x dx = e^x + C$
5. $\int a^x dx = \frac{a^x}{\ln a} + C \ (a > 0, \ a \neq 1)$

6. $\int \operatorname{sen} x \, dx = -\cos x + C$
7. $\int \cos x \, dx = \operatorname{sen} x + C$
8. $\int \tan x \, dx = -\ln|\cos x| + C$
9. $\int \sec x \, dx = \ln|\sec x + \tan x| + C$
10. $\int \csc x \, dx = \ln|\csc x - \cot x| + C$
11. $\int \cot x \, dx = \ln|\operatorname{sen} x| + C$
12. $\int \sec^2 x \, dx = \tan x + C$
13. $\int \csc^2 x \, dx = -\cot x + C$
14. $\int \sec x \tan x \, dx = \sec x + C$
15. $\int \csc x \cot x \, dx = -\csc x + C$

16. $\int \frac{dx}{x^2+a^2} = \frac{1}{a}\arctan(x/a) + C$
17. $\int \frac{dx}{x^2-a^2} = \frac{1}{2a}\ln\left|\frac{x-a}{x+a}\right| + C$
18. $\int \frac{dx}{a^2-x^2} = \frac{1}{2a}\ln\left|\frac{x+a}{x-a}\right| + C$

19. $\int \sqrt{x^2+a^2}dx = \frac{1}{2}\left[x\sqrt{x^2+a^2} + a^2\ln\left|x+\sqrt{x^2+a^2}\right|\right] + C$
20. $\int \sqrt{x^2-a^2}dx = \frac{1}{2}\left[x\sqrt{x^2-a^2} - a^2\ln\left|x+\sqrt{x^2-a^2}\right|\right] + C$
21. $\int \sqrt{a^2-x^2}dx = \frac{1}{2}\left[x\sqrt{a^2-x^2} + a^2\operatorname{arcsen}(x/a)\right] + C$
22. $\int \frac{dx}{\sqrt{x^2+a^2}} = \ln\left|x+\sqrt{x^2+a^2}\right| + C$
23. $\int \frac{dx}{\sqrt{x^2-a^2}} = \ln\left|x+\sqrt{x^2-a^2}\right| + C$
24. $\int \frac{dx}{\sqrt{a^2-x^2}} = \operatorname{arcsen}(x/a) + C$