INTEGRALES (Se puede añadir una constante arbitraria a cada integral.)

1. $\displaystyle\int x^n\,dx = \frac{1}{n+1}x^{n+1} \quad (n \neq -1)$

2. $\displaystyle\int \frac{1}{x}\,dx = \log|x|$

3. $\displaystyle\int e^x dx = e^x$

4. $\displaystyle\int a^x\,dx = \frac{a^x}{\log a}$

5. $\displaystyle\int \operatorname{sen} x\,dx = -\cos x$

6. $\displaystyle\int \cos x\,dx = \operatorname{sen} x$

7. $\displaystyle\int \tan x\,dx = -\log|\cos x|$

8. $\displaystyle\int \cot x\,dx = \log|\operatorname{sen} x|$

9. $\displaystyle\int \sec x\,dx = \log|\sec x + \tan x| = \log\left|\tan\left(\frac{1}{2}x + \frac{1}{4}\pi\right)\right|$

10. $\displaystyle\int \csc x\,dx = \log|\csc x - \cot x| = \log\left|\tan\frac{1}{2}x\right|$

11. $\displaystyle\int \operatorname{arc\,sen}\frac{x}{a}\,dx = x\operatorname{arc\,sen}\frac{x}{a} + \sqrt{a^2 - x^2} \quad (a > 0)$

12. $\displaystyle\int \operatorname{arc\,cos}\frac{x}{a}\,dx = x\operatorname{arc\,cos}\frac{x}{a} - \sqrt{a^2 - x^2} \quad (a > 0)$

13. $\displaystyle\int \arctan\frac{x}{a}dx = x\arctan\frac{x}{a} - \frac{a}{2}\log(a^2 + x^2) \quad (a > 0)$

14. $\displaystyle\int \operatorname{sen}^2 mx\,dx = \frac{1}{2m}(mx - \operatorname{sen}\, mx\, \cos\, mx)$

15. $\displaystyle\int \cos^2 mx\,dx = \frac{1}{2m}(mx + \operatorname{sen} mx\, \cos\, mx)$

16. $\displaystyle\int \sec^2 x\,dx = \tan x$

17. $\displaystyle\int \csc^2 x\,dx = -\cot x$

18. $\displaystyle\int \operatorname{sen}^n x\,dx = -\frac{\operatorname{sen}^{n-1} x\cos\, x}{n} + \frac{n-1}{n}\int \sin^{n-2} x\,dx$

19. $\displaystyle\int \cos^n x\,dx = \frac{\cos^{n-1} x\operatorname{sen} x}{n} + \frac{n-1}{n}\int \cos^{n-2} x\,dx$

20. $\displaystyle\int \tan^n x\,dx = \frac{\tan^{n-1} x}{n-1} - \int \tan^{n-2} x\,dx \quad (n \neq 1)$

21. $\displaystyle\int \cot^n x\,dx = -\frac{\cot^{n-1} x}{n-1} - \int \cot^{n-2} x\,dx \quad (n \neq 1)$

22. $\displaystyle\int \sec^n x\,dx = \frac{\tan x\sec^{n-2} x}{n-1} + \frac{n-2}{n-1}\int \sec^{n-2} x\,dx \quad (n \neq 1)$

23. $\displaystyle\int \csc^n x\,dx = -\frac{\cot x\csc^{n-2} x}{n-1} + \frac{n-2}{n-1}\int \csc^{n-2} x\,dx \quad (n \neq 1)$