

Formulario de Integrales

(Miguel Ángel Castillo)

1. $\int c du = cu + c$

2. $\int u du = \frac{1}{2}u^2 + c$

3. $\int u^n du = \frac{u^{n+1}}{n+1} + c$, si $n \neq -1$

4. $\int \frac{1}{u} du = \ln|u| + c$

5. $\int e^u du = e^u + c$

6. $\int a^u du = \frac{1}{\ln a} a^u + c$

7. $\int \operatorname{sen} u du = -\operatorname{cos} u + c$

8. $\int \operatorname{cos} u du = \operatorname{sen} u + c$

9. $\int \operatorname{tan} u du = \ln|\operatorname{sec} u| + c$

10. $\int \operatorname{cot} u du = \ln|\operatorname{sen} u| + c$

11. $\int \operatorname{sec} u du = \ln|\operatorname{sec} u + \operatorname{tan} u| + c$

12. $\int \operatorname{csc} u du = \ln|\operatorname{csc} u - \operatorname{cot} u| + c$

13. $\int \operatorname{sec}^2 u du = \operatorname{tan} u + c$

14. $\int \operatorname{csc}^2 u du = -\operatorname{cot} u + c$

15. $\int \operatorname{sec} u \operatorname{tan} u du = \operatorname{sec} u + c$

16. $\int \operatorname{csc} u \operatorname{cot} u du = -\operatorname{csc} u + c$

17. $\int \frac{1}{1+u^2} du = \operatorname{tan}^{-1} u + c$

18. $\int \frac{1}{a^2+u^2} du = \frac{1}{a} \operatorname{tan}^{-1}\left(\frac{u}{a}\right) + c$

19. $\int \frac{1}{\sqrt{1-u^2}} du = \operatorname{sen}^{-1} u + c$

20. $\int \frac{1}{\sqrt{a^2-u^2}} du = \operatorname{sen}^{-1}\left(\frac{u}{a}\right) + c$

21. $\int \frac{1}{u\sqrt{u^2-1}} du = \operatorname{sec}^{-1} u + c$

22. $\int \frac{1}{u\sqrt{u^2-a^2}} du = \frac{1}{a} \operatorname{sec}^{-1}\left(\frac{u}{a}\right) + c$

20. $\int c f(u) du = c \int f(u) du$

21. $\int [f(u) + g(u)] du = \int f(u) du + \int g(u) du$