

**Tablas de Integrales elementales**

1.

$$\int u^n du = \frac{1}{n+1} u^{n+1} + C$$

2.

$$\int \frac{1}{u} du = \ln |u| + C$$

3.

$$\int e^u du = e^u + C$$

4.

$$\int a^u du = \frac{1}{\ln a} a^u + C$$

5.

$$\int \operatorname{sen} u du = -\cos u + C$$

6.

$$\int \cos u du = \operatorname{sen} u + C$$

7.

$$\int \tan u du = \ln |\sec u| + C$$

8.

$$\int \cot u du = \ln |\operatorname{sen} u| + C$$

9.

$$\int \sec u du = \ln |\sec u + \tan u| + C$$

10.

$$\int \csc u du = \ln |\csc u - \cot u| + C$$

11.

$$\int \sec u \tan u du = \sec u + C$$

12.

$$\int \csc u \cot u du = -\csc u + C$$

13.

$$\int \sec^2 u du = \tan u + C$$

14.

$$\int \csc^2 u du = -\cot u + C$$

15.

$$\int \frac{1}{\sqrt{a^2 - u^2}} du = \operatorname{sen}^{-1} \frac{u}{a} + C$$

16.

$$\int \frac{1}{\sqrt{a^2 + u^2}} du = \operatorname{senh}^{-1} \frac{u}{a} + C$$

17.

$$\int \frac{1}{a^2 + u^2} du = \frac{1}{a} \tan^{-1} \frac{u}{a} + C$$

18.

$$\int \frac{1}{a^2 - u^2} du = \frac{1}{a} \tanh^{-1} \frac{u}{a} + C$$

19.

$$\int \frac{1}{u\sqrt{u^2 - a^2}} du = \frac{1}{a} \sec^{-1} \frac{u}{a} + C$$

20.

$$\int \frac{1}{u\sqrt{a^2 - u^2}} du = -\frac{1}{a} \operatorname{sech}^{-1} \frac{|u|}{a} + C$$