Tabla de Integrales

1. $\int u^n\,du = \frac{1}{n+1}\,u^{n+1} + C\ ,\ n \neq -1$	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. $\int \sin(u)\,du = -\cos(u) + C$	6. $\int \cos(u)\,du = \sin(u) + C$
7. $\int \sec^2(u)\,du = \tan(u) + C$	8. $\int \csc^2(u)\,du = -\cot(u) + C$	9. $\int \sec(u)\,\tan(u)\,du = \sec(u) + C$
10. $\int \csc(u)\,\cot(u)\,du = -\csc(u) + C$	11. $\int \tan(u)\,du = -\ln\lvert\sec(u)\rvert + C$	12. $\int \cot(u)\,du = \ln\lvert\text{sen}(u)\rvert + C$
13. $\int \sec(u)\,du = \ln\lvert\sec(u) + \tan(u)\rvert + C$	14. $\int \csc(u)\,du = \ln\lvert\csc(u) - \cot(u)\rvert + C$	
15. $\int \frac{du}{a^2+u^2} = \frac{1}{a}\,\arctan\left(\frac{u}{a}\right) + C$	16. $\int \frac{du}{a^2-u^2} = \frac{1}{2a}\,\ln\left\lvert\frac{u+a}{u-a}\right\rvert + C$	17. $\int \frac{du}{u^2-a^2} = \frac{1}{2a}\,\ln\left\lvert\frac{u-a}{u+a}\right\rvert + C$

1. $\int \sqrt{a^2+u^2}\,du = \frac{u}{2}\sqrt{a^2+u^2} + \frac{a^2}{2}\ln\left(u+\sqrt{a^2+u^2}\right) + C$	2. $\int \frac{du}{\sqrt{a^2+u^2}} = \ln\left(u+\sqrt{a^2+u^2}\right) + C$
3. $\int \sqrt{a^2-u^2}\,du = \frac{u}{2}\sqrt{a^2-u^2} + \frac{a^2}{2}\,\arcsin\left(\frac{u}{a}\right) + C$	4. $\int \frac{du}{\sqrt{a^2-u^2}} = \arcsin\left(\frac{u}{a}\right) + C$
5. $\int \sqrt{u^2-a^2}\,du = \frac{u}{2}\sqrt{u^2-a^2} - \frac{a^2}{2}\ln\left\lvert u+\sqrt{u^2-a^2}\right\rvert + C$	6. $\int \frac{du}{\sqrt{u^2-a^2}} = \ln\left\lvert u+\sqrt{u^2-a^2}\right\rvert + C$

1. $\int u\,e^{a\,u}\,du = \frac{1}{a^2}\,(a\,u-1)\,e^{a\,u} + C + C$	2. $\int \ln(u)\,du = u\,\ln(u) - u + C$
3. $\int e^{a\,u}\,\sin(b\,u)\,du = \frac{e^{a\,u}}{a^2+b^2}\,(a\,\sin(b\,u) - b\,\cos(b\,u)) + C$	4. $\int e^{a\,u}\,\cos(b\,u)\,du = \frac{e^{a\,u}}{a^2+b^2}\,(a\,\cos(b\,u) + b\,\sin(b\,u)) + C$