

List of Integrals

1. $\int a \, dx = ax + c, a \in \mathbb{R}$

2. $\int x^n \, dx = \frac{x^{n+1}}{n+1} + c, n \neq -1$

3. $\int x^{-1} \, dx = \ln|x| + c$

4. $\int e^{kx} \, dx = \frac{e^{kx}}{k} + c$

5. $\int a^x \, dx = \frac{a^x}{\ln(a)} + c$

6. $\int \cos x \, dx = \sin x + c$

7. $\int \sin x \, dx = -\cos x + c$

8. $\int \sec^2 x \, dx = \tan x + c$

9. $\int \sec x \cdot \tan x \, dx = \sec x + c$

10. $\int \sec x \, dx = \ln|\sec x + \tan x| + c$

11. $\int \csc x \, dx = -\ln|\csc x + \cot x| + c$

$$12. \int \csc^2 x \, dx = -\cot x + C$$

$$13. \int \csc x \cdot \cot x \, dx = -\csc x + C$$

$$14. \int \frac{1}{\sqrt{1-x^2}} \, dx = \arcsin x + C$$

$$15. \int \frac{1}{1+x^2} \, dx = \arctan x + C$$

$$16. \int \frac{1}{|x|\sqrt{x^2-1}} \, dx = \operatorname{arcsec}(x) + C$$

$$17. \int \ln x \, dx = x - x \ln x + C$$