

66.6: Table of Integrals

In the following table, an arbitrary constant C should be added to each result.

$$\int dx = x$$

$$\int a dx = ax$$

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

$$\int \sqrt{x} dx = \frac{2}{3} \sqrt{x^3}$$

$$\int \frac{1}{x} dx = \ln |x|$$

$$\int \sin x dx = -\cos x$$

$$\int \cos x dx = \sin x$$

$$\int \tan x dx = \ln |\sec x|$$

$$\int \sec x dx = \ln |\sec x + \tan x|$$

$$\int \csc x dx = \ln |\csc x - \cot x|$$

$$\int \cot x dx = \ln |\sin x|$$

$$\int e^x dx = e^x$$

$$\int \ln x dx = x \ln x - x$$

$$\int a^x dx = \frac{a^x}{\ln a}$$

$$\int \log_a x dx = \frac{x \ln x - x}{\ln a}$$

$$\int \sinh x dx = \cosh x$$

$$\int \cosh x dx = \sinh x$$

$$\int \tanh x dx = \ln \cosh x$$

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