

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

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

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

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

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

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

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

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

$$\int \sec^2 x dx = \tan x$$

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

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

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

$$\int \frac{1}{x^2 + a^2} dx = \frac{1}{a} \tan^{-1} \frac{x}{a}$$

$$\int \frac{1}{(x^2 + a^2)^2} dx = \frac{x}{2a^2(x^2 + a^2)} + \frac{1}{2a^3} \tan^{-1} \frac{x}{a}$$

$$\int \frac{1}{x^2 - a^2} dx = \frac{1}{2a} \ln \left| \frac{x-a}{x+a} \right|$$

$$\int \frac{1}{\sqrt{a^2 - x^2}} dx = \sin^{-1} \frac{x}{a}$$