Integral Reference Table

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

$$\int \sec x\,dx = \frac{1}{2}\ln\left|\frac{1+\sin x}{1-\sin x}\right| = \ln|\sec x + \tan x|$$

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

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

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

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

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

$$\int \tan x\,dx = -\ln|\cos x|$$

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

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

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

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

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

$$\int \frac{1}{x^2+a^2}\,dx = \frac{1}{a}\arctan\frac{x}{a}$$

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

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