

$$(i) \int dx = x + C .$$

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

$$(iii) \int \frac{dx}{x} = \ln|x| + C .$$

$$(iv) \int a^x dx = \frac{a^x}{\ln a} + C, \quad a > 0, \quad a \neq 1 .$$

$$(v) \int e^x dx = e^x + C .$$

$$(vi) \int \sin x dx = -\cos x + C .$$

$$(vii) \int \cos x dx = \sin x + C .$$

$$(viii) \int \tan x dx = \ln|\sec x| + C .$$

$$(ix) \int \cot x dx = \ln|\sin x| + C .$$

$$(x) \int \sec x du = \ln|\sec x + \tan x| + C .$$

$$(xi) \int \csc x dx = \ln|\csc x - \cot x| + C .$$

$$(xii) \int \sec x \tan x dx = \sec x + C .$$

$$(xiii) \int \csc x \cot x dx = -\csc x + C .$$

$$(xiv) \int \sec^2 x dx = \tan x + C .$$

$$(xv) \int \csc^2 x dx = -\cot x + C .$$

$$(xvi) \int \frac{dx}{x^2 + a^2} = \frac{1}{a} \operatorname{arc \, tg} \frac{x}{a} + C .$$

$$(xvii) \int \frac{dx}{x^2 - a^2} = \frac{1}{2a} \ln \left| \frac{x-a}{x+a} \right| + C, \quad x^2 > a^2 .$$

$$(xviii) \int \frac{dx}{\sqrt{x^2 + a^2}} = \ln \left| x + \sqrt{x^2 + a^2} \right| + C .$$

$$(xix) \int \frac{dx}{\sqrt{x^2 - a^2}} = \ln \left| x + \sqrt{x^2 - a^2} \right| + C .$$

$$(xx) \int \frac{dx}{\sqrt{a^2 - x^2}} = \operatorname{arc \, sen} \frac{x}{a} + C, \quad x^2 < a^2 .$$