

$$\begin{array}{ll} \int x^n dx = \frac{x^{n+1}}{n+1} + C \quad (n \neq -1) & \int \frac{1}{x} dx = \ln |x| + C \\ \int e^x dx = e^x + C & \int a^x dx = \frac{a^x}{\ln a} + C \\ \int \sin x dx = -\cos x + C & \int \cos x dx = \sin x + C \\ \int \sec^2 x dx = \tan x + C & \int \csc^2 x dx = -\cot x + C \\ \int \sec x \tan x dx = \sec x + C & \int \csc x \cot x dx = -\csc x + C \\ \int \sinh x dx = \cosh x + C & \int \cosh x dx = \sinh x + C \\ \int \tan x dx = \ln |\sec x| + C & \int \cot x dx = \ln |\sin x| + C \\ \int \frac{1}{x^2 + a^2} dx = \frac{1}{a} \tan^{-1} \frac{x}{a} + C & \int \frac{1}{\sqrt{a^2 - x^2}} dx = \sin^{-1} \frac{x}{a} + C, \quad a > 0 \end{array}$$