

Table of Indefinite Integrals

$$\int c f(x) dx = c \int f(x) dx \qquad \int [f(x) + g(x)] dx = \int f(x) dx + \int g(x) dx$$

$$\int k dx = kx + C$$

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

$$\int e^x dx = e^x + C \qquad \int b^x dx = \frac{b^x}{\ln b} + C$$

$$\int \sin x dx = -\cos x + C \qquad \int \cos x dx = \sin x + C$$

$$\int \sec^2 x dx = \tan x + C \qquad \int \csc^2 x dx = -\cot x + C$$

$$\int \sec x \tan x dx = \sec x + C \qquad \int \csc x \cot x dx = -\csc x + C$$

$$\int \frac{1}{x^2+1} dx = \tan^{-1} x + C \qquad \int \frac{1}{\sqrt{1-x^2}} dx = \sin^{-1} x + C$$