

समाकलन के सूत्र

$$\rightarrow \int x^n \cdot dx = \frac{x^{n+1}}{n+1} + C$$

$$\rightarrow \int e^x \cdot dx = e^x + C$$

$$\rightarrow \int e^{-x} \cdot dx = -e^{-x} + C$$

$$\rightarrow \int \frac{1}{x} \cdot dx = \log x + C$$

$$\rightarrow \int \sin x \cdot dx = -\cos x + C$$

$$\rightarrow \int \cos x \cdot dx = \sin x + C$$

$$\rightarrow \int \tan x \cdot dx = \log \sec x + C$$

$$\rightarrow \int \cot x \cdot dx = \log \sin x + C$$

$$\rightarrow \int \sec x \cdot dx = \log |\sec x + \tan x| + C$$

$$\rightarrow \int \operatorname{cosec} x \cdot dx = \log |\operatorname{cosec} x - \cot x| + C$$

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

$$\Rightarrow \int \frac{1}{1+x^2} \cdot dx = \tan^{-1}x + C$$

$$\Rightarrow \int \frac{1}{x\sqrt{x^2-1}} \cdot dx = \sec^{-1}x + C$$

$$\Rightarrow \int \frac{1}{\sqrt{a^2-x^2}} \cdot dx = \sin^{-1}\left(\frac{x}{a}\right) + C$$

$$\Rightarrow \int \frac{1}{\sqrt{x^2-a^2}} \cdot dx = \log | x + \sqrt{x^2-a^2} | + C$$

$$\Rightarrow \int \frac{1}{\sqrt{x^2+a^2}} \cdot dx = \log | x + \sqrt{x^2+a^2} | + C$$

$$\Rightarrow \int \sqrt{a^2-x^2} \cdot dx = \frac{x}{2} \sqrt{a^2-x^2} + \frac{a^2}{2} \sin^{-1}\left(\frac{x}{a}\right) + C$$

$$\Rightarrow \int \sqrt{a^2+x^2} \cdot dx = \frac{x}{2} \sqrt{a^2+x^2} + \frac{a^2}{2} \log | x + \sqrt{x^2+a^2} | + C$$

$$\Rightarrow \int \sqrt{x^2-a^2} \cdot dx = \frac{x}{2} \sqrt{x^2-a^2} - \frac{a^2}{2} \log | x + \sqrt{x^2-a^2} | + C$$

$$\Rightarrow \int \frac{1}{a^2 - x^2} \cdot dx = \frac{1}{2a} \log \left| \frac{a+x}{a-x} \right| + C$$

$$\Rightarrow \int \frac{1}{x^2 - a^2} \cdot dx = \frac{1}{2a} \log \left| \frac{x-a}{x+a} \right| + C$$

$$\Rightarrow \int \sec^2 x \cdot dx = \tan x + C$$

$$\Rightarrow \int \operatorname{cosec}^2 x \cdot dx = -\cot x + C$$

$$\Rightarrow \int \sec x \cdot \tan x \cdot dx = \sec x + C$$

$$\Rightarrow \int \operatorname{cosec} x \cdot \cot x \cdot dx = -\operatorname{cosec} x + C$$

$$\Rightarrow \int K \cdot dx = Kx + C \text{ (जहाँ } K = \text{अचर राशि)}$$

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

नोट : यह पीडीएफ विभिन्न स्रोतों से तथ्य एकत्रित कर बनायीं गयी है | यदि इसमें कोई त्रुटी पायी जाती है तो नॉलेज हब संचालक की जिम्मेदारी नहीं होगी |

अन्य पीडीएफ डाउनलोड करने के लिए यहाँ क्लिक करें या गूगल पर सर्च करें - Knowledge Hub PDF



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