

# C4 Integral List

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

$$\int (ax+b)^n dx = \frac{1}{a} \frac{(ax+b)^{n+1}}{n+1} + C$$

$$\int e^x = e^x + C$$

$$\int e^{ax+b} dx = \frac{1}{a} e^{ax+b} + C$$

$$\int \frac{1}{x} = \ln|x| + C$$

$$\int \frac{1}{ax+b} dx = \frac{1}{a} \ln|ax+b| + C$$

$$\int \cos x = \sin x + C$$

$$\int \cos(ax+b) dx = \frac{1}{a} \sin(ax+b) + C$$

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

$$\int \sin(ax+b) dx = -\frac{1}{a} \cos(ax+b) + C$$

$$\int \sec^2 x = \tan x + C$$

$$\int \sec^2(ax+b) dx = \frac{1}{a} \tan(ax+b) + C$$

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

$$\int \operatorname{cosec}(ax+b) \cot(ax+b) dx = -\frac{1}{a} \operatorname{cosec}(ax+b) + C$$

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

$$\int \operatorname{cosec}^2(ax+b) dx = -\frac{1}{a} \cot(ax+b) + C$$

$$\int \sec x \tan x = \sec x + C$$

$$\int \sec(ax+b) \tan(ax+b) dx = \frac{1}{a} \sec(ax+b) + C$$

Given in exam