The list of Elementary Integrals

- $\int 0dx = C$
- $\int x^2\,dx = \frac{x^{a+1}}{a+1} + C, if\ a \neq -1$
- $\int \frac{dx}{x} = \ln|x| + C$
- $\int a^x dx = \frac{a^x}{\ln a} + C, particularly\ \int e^x dx = e^x + C$
- $\int \sin x\,dx = -\cos x + C$
- $\int \cos x dx = \sin x + C$
- $\int \frac{dx}{sin^2 x} = -\text{ctg}\,x + C$
- $\int \frac{dx}{cos^2 x} = \tan x + C$
- $\int \frac{dx}{1+x^2} = \arctan x + C$
- $\int \frac{dx}{\sqrt{1-x^2}} = \arcsin x + C$

Most common used integrals

- $\int \frac{dx}{a^2+x^2} = \frac{1}{a}\text{arctg}\frac{x}{a} + C$
- $\int \frac{dx}{\sqrt{a^2-x^2}} = \arcsin\frac{x}{a} + C$
- $\int \frac{dx}{\sqrt{a^2-x^2}} = \arcsin\frac{x}{a} + c$
- $\int \frac{dx}{\sqrt{x^2+a}} = \ln\left|x + \sqrt{x^2+a}\right| + C$

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