

TABEL FORMULA INTEGRAL DASAR

No.	Formula Integral	Syarat / Keterangan
1.	$\int x^r dx = \frac{x^{r+1}}{r+1} + C$	Syarat ; $r \neq -1$
2.	$\int a f(x) dx = a \int f(x) dx$	a adalah sebuah konstanta
3.	$\int [f(x) + g(x)] dx = \int f(x) dx + \int g(x) dx$	
4.	$\int [f(x) - g(x)] dx = \int f(x) dx - \int g(x) dx$	
5.	$\int [g(x)]^r g'(x) dx = \frac{[g(x)]^{r+1}}{r+1} + C$	Syarat ; $r \neq -1$
6.	$\int \sin x dx = -\cos x + C$	
7.	$\int \cos x dx = \sin x + C$	
8.	$\int \tan x dx = \ln \sec x + C$	
9.	$\int \cot x dx = \ln \sin x + C$	
10.	$\int \sec x dx = \ln \sec x + \tan x + C$	
11.	$\int \operatorname{cosec} x dx = \ln \operatorname{cosec} x - \cot x + C$	
12.	$\int \sec^2 x dx = \tan x + C$	
13.	$\int \operatorname{cosec}^2 x dx = -\cot x + C$	
14.	$\int \sec x \tan x dx = \sec x + C$	
15.	$\int \frac{dx}{x} = \ln x + C$	
16.	$\int a^x dx = \frac{a^x}{\ln a }$	$a > 0, a \neq 1, a \text{ konstanta}$
17.	$\int e^x dx = e^x + C$	

No.	Formula Integral	Syarat / Keterangan
18.	$\int \frac{dx}{\sqrt{a^2 - x^2}} = \sin^{-1} \left(\frac{x}{a} \right) + C$	
19.	$\int \frac{dx}{a^2 + x^2} = \frac{1}{a} \tan^{-1} \left(\frac{x}{a} \right) + C$	
20.	$\int \frac{dx}{x\sqrt{x^2 - a^2}} = \frac{1}{a} \sec^{-1} \left(\frac{x}{a} \right) + C$	
21.	$\int \frac{dx}{a^2 - x^2} = \frac{1}{2a} \ln \left \frac{x-a}{x+a} \right + C$	
22.	$\int \frac{dx}{a^2 - x^2} = \frac{1}{2a} \ln \left \frac{a+x}{a-x} \right + C$	
23.	$\int \frac{dx}{x^2 - a^2} = \frac{1}{2a} \ln \left \frac{x-a}{x+a} \right + C$	
24.	$\int \frac{dx}{\sqrt{x^2 + a^2}} = \ln \left(x + \sqrt{x^2 + a^2} \right) + C$	
25.	$\int \frac{dx}{\sqrt{x^2 - a^2}} = \ln \left(x + \sqrt{x^2 - a^2} \right) + C$	
26.	$\int \sqrt{a^2 - x^2} dx = \frac{1}{2} x \sqrt{a^2 - x^2} + \frac{1}{2} a^2 \sin^{-1} \left(\frac{x}{a} \right) + C$	
27.	$\int \sqrt{x^2 + a^2} dx = \frac{1}{2} x \sqrt{a^2 + x^2} + \frac{1}{2} a^2 \ln \left(x + \sqrt{x^2 + a^2} \right) + C$	
28.	$\int \sqrt{x^2 - a^2} dx = \frac{1}{2} x \sqrt{x^2 - a^2} - \frac{1}{2} a^2 \ln \left(x + \sqrt{x^2 + a^2} \right) + C$	