

1. $\int f(g(x)) \cdot g'(x) dx = \int f(z) \cdot dz,$
2. $\int u dv = uv - \int v du$
3. $\int x^n dx = \frac{x^{n+1}}{n+1} + C,$
4. $\int \frac{dx}{ax+b} = \frac{1}{a} \ln(ax+b) + C$
5. $\int e^{ax} dx = \frac{1}{a} e^{ax} + C,$
6. $\int a^x dx = \frac{a^x}{\ln(a)} + C$
7. $\int \cos(ax) dx = \frac{1}{a} \sin(ax) + C,$
8. $\int \sin(ax) dx = -\frac{1}{a} \cos(ax) + C$
9. $\int \sec x \tan x dx = \sec x + C,$
10. $\int \sec^2 x dx = \tan x + C$
11. $\int \csc x \cot x dx = -\csc x + C,$
12. $\int \csc^2 x dx = -\cot x + C$
13. $\int \sec x dx = \ln(\sec x + \tan x) + C,$
14. $\int \tan x dx = \ln(\sec x) + C$
15. $\int \csc x dx = -\ln(\csc x + \cot x) + C,$
16. $\int \cot x dx = -\ln(\csc x) + C$
17. $\int \frac{dx}{a^2+x^2} = \frac{1}{a} \tan^{-1}\left(\frac{x}{a}\right) + C,$
18. $\int \frac{dx}{x^2-a^2} = \frac{1}{2a} \ln\left(\frac{x-a}{x+a}\right) + C$
19. $\int \frac{dx}{\sqrt{a^2-x^2}} = \sin^{-1}\left(\frac{x}{a}\right) + C,$
20. $\int \frac{dx}{x\sqrt{x^2-a^2}} = \frac{1}{a} \sec^{-1}\left(\frac{x}{a}\right) + C$
21. $\int x^n e^x dx = x^n e^x - n \int x^{n-1} e^x dx,$
26. $\int e^x \sin x dx = \frac{e^x}{2} (\sin x - \cos x) + C$
22. $\int \cos^n x dx = \frac{1}{n} \cos^{n-1} x \cdot \sin x + \frac{n-1}{n} \int \cos^{n-2} x dx, n \geq 2.$
23. $\int \sin^n x dx = -\frac{1}{n} \sin^{n-1} x \cdot \cos x + \frac{n-1}{n} \int \sin^{n-2} x dx, n \geq 2.$
24. $\int \sec^n x dx = \frac{1}{n-1} \sec^{n-2} x \cdot \tan x + \frac{n-2}{n-1} \int \sec^{n-2} x dx, n \geq 2.$
25. $\int \tan^n x dx = \frac{1}{n-1} \tan^{n-1} x - \int \tan^{n-2} x dx, n \geq 2.$