

1. $\int u^n du = \frac{u^{n+1}}{n+1} \quad n \neq -1$
2. $\int \frac{du}{u} = \ln |u|$
3. $\int \sin u du = -\cos u$
4. $\int \cos u du = \sin u$
5. $\int \tan u du = \ln |\sec u|$
 $= -\ln |\cos u|$
6. $\int \cot u du = \ln |\sin u|$
7. $\int \sec u du = \ln |\sec u + \tan u|$
 $= \ln |\tan(u/2 + \pi/4)|$
8. $\int \csc u du = \ln |\csc u - \cot u|$
 $= \ln |\tan u/2|$
9. $\int \sec^2 u du = \tan u$
10. $\int \csc^2 u du = -\cot u$
11. $\int \sec u \tan u du = \sec u$
12. $\int \csc u \cot u du = -\csc u$
13. $\int a^u du = \frac{a^u}{\ln a} \quad a > 0, a \neq 1$
14. $\int e^u du = e^u$
15. $\int \sinh u du = \cosh u$
16. $\int \cosh u du = \sinh u$
17. $\int \tanh u du = \ln \cosh u$
18. $\int \coth u du = \ln |\sinh u|$
19. $\int \operatorname{sech} u du = \tan^{-1}(\sinh u)$
20. $\int \operatorname{csch} u du = -\operatorname{coth}^{-1}(\cosh u)$
21. $\int \operatorname{sech}^2 u du = \tanh u$
22. $\int \operatorname{csch}^2 u du = -\operatorname{coth} u$
23. $\int \operatorname{sech} u \tanh u du = -\operatorname{sech} u$
24. $\int \operatorname{csch} u \operatorname{coth} u du = -\operatorname{csch} u$
25. $\int \frac{du}{\sqrt{s^2 - u^2}} = \sin^{-1} \frac{u}{a} \quad \text{or} \quad -\cos^{-1} \frac{u}{a}$
26. $\int \frac{du}{\sqrt{u^2 \pm a^2}} = \ln |u + \sqrt{u^2 \pm a^2}|$
27. $\int \frac{du}{u^2 + a^2} = \frac{1}{a} \tan^{-1} \frac{u}{a} \quad \text{or} \quad -\frac{1}{a} \cot^{-1} \frac{u}{a}$
28. $\int \frac{du}{u^2 - a^2} = \frac{1}{2a} \ln \left| \frac{u-a}{u+a} \right|$
29. $\int \frac{du}{u\sqrt{a^2 \pm u^2}} = \frac{1}{a} \ln \left| \frac{u}{a + \sqrt{a^2 \pm u^2}} \right|$
30. $\int \frac{du}{u\sqrt{u^2 - a^2}} = \frac{1}{a} \cos^{-1} \frac{a}{u} \quad \text{or} \quad \frac{1}{a} \sec^{-1} \frac{u}{a}$
31. $\int \sqrt{u^2 \pm a^2} du = \frac{u}{2} \sqrt{u^2 \pm a^2}$
 $\pm \frac{a^2}{2} \ln |u + \sqrt{u^2 \pm a^2}|$
32. $\int \sqrt{a^2 - u^2} du = \frac{u}{2} \sqrt{a^2 - u^2} + \frac{a^2}{2} \sin^{-1} \frac{u}{a}$
33. $\int e^{au} \sin bu du = \frac{e^{au}(a \sin bu - b \cos bu)}{a^2 + b^2}$
34. $\int e^{au} \cos bu du = \frac{e^{au}(a \cos bu + b \sin bu)}{a^2 + b^2}$