

Below is a list of indefinite integrals that you know how to find from your Calculus I class. Evaluate these integrals.

1. $\int x^2 dx$

2. $\int x^n dx$ for $n \neq -1$

3. $\int \frac{1}{a} da$

4. $\int e^\alpha d\alpha$

5. $\int 7^q dq$

6. $\int b^x dx$ for $b > 0$

7. $\int \sin \theta d\theta$

8. $\int \cos \phi d\phi$

9. $\int \tan w dw$

10. $\int \cot v dv$

11. $\int \sec^2 u du$

12. $\int \sec y \tan y dy$

13. $\int \csc^2 \beta d\beta$

14. $\int \csc r \cot r dr$

15. $\int \frac{1}{1 + \xi^2} d\xi$

16. $\int \frac{1}{\sqrt{1 - \ell^2}} d\ell$

17.
$$\int \sqrt{z}(z^2 + 6z + 4) dz$$

18.
$$\int \frac{6y^8 + 12y^2 - y^6}{3y^7} dy$$

19.
$$\int 5e^m + \cos m + m^3 dm$$

20.
$$\int \frac{2b}{b^2 + 7} db$$

21. (a)
$$\int \frac{\sec^2 x + \sec x \tan x}{\sec x + \tan x} dx$$

(b)
$$\int \frac{\sec x(\sec x + \tan x)}{\sec x + \tan x} dx$$

(c)
$$\int \sec x dx$$

22.
$$\int \csc x dx$$