



Integration Practice

Evaluate the following indefinite integrals:

1. $\int (x^2 - 2x + 4) dx$

2. $\int 3x^2(x^3 - 4)^2 dx$

3. $\int e^{-2x} dx$

4. $\int \sec^2 x e^{\tan x} dx$

5. $\int \frac{x+4}{\sqrt{x^2+8x+5}} dx$

6. $\int \frac{\cos \theta}{\sin^2 \theta} d\theta$

7. $\int \frac{\cos \theta}{\sin \theta} d\theta$

8. $\int \frac{2+4e^{2x}}{x+e^{2x}} dx$

9. $\int \frac{dx}{x(\ln 2x)^2}$

10. $\int \frac{\tan^{-1} x}{1+x^2} dx$

11. $\int \frac{\cos(\ln x)}{x} dx$

12. $\int \frac{3x}{4+x^4} dx$

13. $\int \frac{x^2}{\sqrt{9-x^6}} dx$

14. $\int \frac{x^2-1}{x+2} dx$

15. $\int \frac{x-1}{x^2+2} dx$

16. $\int \frac{2}{x^2 - 1} dx$

17. $\int \frac{\sqrt{9 - x^2}}{x^2} dx$

18. $\int x\sqrt{x+3} dx$

19. $\int x \ln x dx$

20. $\int \sin^{-1} x dx$

21. $\int e^x \sin x dx$