

数III積分

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1. $\int dx$

2. $\int x^n dx$

3. $\int 2^x dx$

4. $\int \log x dx$

5. $\int x \log x dx$

6. $\int \sin 2x \sin 9x dx$

7. $\int \tan x dx$

8. $\int \frac{dx}{\sin x + 1}$

9. $\int \frac{dx}{\cos x}$

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

11. $\int \frac{dx}{x^2 - 4x + 3}$

12. $\int_{-2}^{\sqrt{5}-2} \frac{dx}{x^2 + 4x + 9}$

13. $\int \frac{2x^2 + 12x + 7}{x^2 + 5x + 1} dx$

14. $\int \frac{3x + 1}{(x + 2)^2} dx$

$$15. \quad \int_{-\frac{1}{2}}^{\frac{1}{2}} \sqrt{\frac{1-x}{1+x}} \, dx$$

$$16. \quad \int x^x (1 + \log x) \, dx$$

$$17. \quad \int_0^{\frac{\pi}{2}} \frac{\sin x}{\sin x + \cos x} \, dx$$

$$18. \quad \int \frac{dx}{e^x + 1}$$

$$19. \quad \int \sqrt{e^x} + 1 \, dx$$

$$20. \quad \int \frac{dx}{\sqrt{x^2 + 1}}$$

$$21. \quad \int \sqrt{x^2 + 1} \, dx$$

$$22. \quad \int \frac{x}{\sqrt{x+1} + 1} \, dx$$

$$23. \quad \int_{-1}^1 \frac{x^2}{1 + e^x} \, dx$$

$$24. \quad \int e^x \sin x \, dx$$

$$25. \quad \int_{\alpha}^{\beta} (x - \alpha)^n (x - \beta) \, dx$$

$$26. \quad \int_0^{\pi} \frac{x \sin x}{3 + \sin^2 x} \, dx$$