

1. $\int \sin(\ln x) dx$

2. $\int \frac{dx}{x \ln x}$

3. $\int \left(\frac{1}{4^x} + 4^x \right) dx$

4. $\int x^2 \ln x dx$

5. $\int \sqrt{x} \sin(1 + x^{3/2}) dx$

6. $\int \sin x \ln(\tan x) dx$

$$7. \int \frac{4}{2x^2 + x} dx$$

$$8. \int e^{-3x} \cos 4x dx$$

$$9. \int \cos^4 \theta \sin \theta dx$$

$$10. \int \frac{4x^3 + 4x^2 + x - 1}{x^2(x+1)^2} dx$$

$$11. \int p^5 \ln p dp$$

$$12. \int x^3(2 + x^4)^5 dx$$

$$13. \int \frac{dx}{1 - x^4}$$

$$14. \int \frac{2x + 3}{9x^2 - 12x + 8} dx$$

$$15. \int x \tan^2 x dx$$

$$16. \int \frac{2^{x+1} - 5^{x-1}}{10^x} dx$$

$$17. \int \frac{\sin 2x - 1}{1 + \cos x} dx$$

$$18. \int \frac{dt}{(1 - 6t)^4}$$

$$19. \int \frac{2x^3 + 9x - 1}{x^2(x^2 - 1)} dx$$

$$20. \int \frac{\sec^2(1/x)}{x^2} dx$$

$$21. \int \frac{x \ln(1+x^2) + e^{\operatorname{arccot} x} + 1}{1+x^2} dx$$

$$22. \int \frac{x^2 + 1}{x^2 + x - 2} dx$$

$$23. \int (x-1) \sin \pi x dx$$

$$24. \int \frac{dt}{\cos^2 t \sqrt{1 + \tan t}}$$

$$25. \int \frac{dx}{x(x+1)(x-2)}$$

$$26. \int y e^{2y} dy$$

$$27. \int \frac{5x + 7}{x^2 + 2x - 3} dx$$

$$28. \int s 2^s ds$$

$$29. \int \frac{dx}{ax + b}, \quad a \neq 0$$

$$30. \int \frac{1}{e^{2x} + 5e^x} dx$$

$$31. \int \frac{x - \sqrt[3]{\operatorname{arccot} 3x}}{1 + 9x^2} dx$$

$$32. \int \frac{1}{1 + \cos x} dx$$

$$33. \int \frac{1}{s^2(s-1)^2} ds$$

$$34. \int \cos x e^{\sin x} dx$$

$$35. \int \frac{t^2 dt}{9 + t^6}$$

$$36. \int \cot^2 5x dx$$

$$37. \int \frac{x^3 - x}{(x^4 - 2x^2 + 3)^2} dx$$

$$38. \int x \sin x dx$$

$$39. \int \frac{6x + 5}{36x^2 + 25} dx$$

$$40. \int x^2 \cos(x^3) dx$$

$$41. \int x^2 \sin x dx$$

$$42. \int \frac{\sin x}{1 + \cos^2 x} dx$$

$$43. \int \frac{3x^2 + 2x - 1}{x(x + 1)} dx$$

$$44. \int \sin(\ln x) dx$$

$$45. \int \ln(x^2 + 1) dx$$

$$46. \int \sin 2x \ln(\cos x) dx$$

$$47. \int \frac{x + 1}{x(1 + xe^x)} dx$$

$$48. \int \frac{\ln 2x}{x \ln 4x} dx$$

$$49. \int \frac{\sqrt{x^2 + 1} [\ln(x^2 + 1) - 2 \ln x]}{x^4} dx$$