

Evaluate the following integrals.

1. $\int 10x(5x^2 - 3)dx$

2. $\int x\sqrt{x^2 - 5}dx$

3. $\int (5x + 7)^{20} dx$

4. $\int \sin(3x)\cos(3x)dx$

5. $\int_0^{\frac{\pi}{4}} \tan(x)\sec^2(x)dx$

6. $\int (5x + 7)^{13} dx$

7. $\int \cos(2x)\sin(2x)dx$

8. $\int \frac{3xdx}{\sqrt[3]{10 - x^2}}$

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

10. $\int (x^2 + 1)(x^3 + 3x)^{-5} dx$

11. $\int \frac{1}{\sqrt{x}} \sin \sqrt{x} dx$

12. $\int x^2 \sec^2 x^3 dx$

13. $\int \frac{\cos\left(\frac{3}{x}\right)}{x^2} dx$

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

15. $\int \sin(\sin x)\cos(x)dx$

16. $\int \sqrt{3x + 4}dx$

17. $\int t^4 \sqrt[3]{3 - 5t^5} dt$

18. $\int x^2(5 + 2x^3)^8 dx$

19. $\int (5x^4 - 8x^3 + 9x^2 - 2x + 7)dx$

20. $\int \frac{x^2 - 4x - 4}{\sqrt{x}} dx$

21. $\int \sqrt{x} \left(x + \frac{1}{x} \right) dx$

22. $\int \frac{a}{\sqrt{3a^2 + 1}} da$

23. $\int \frac{5t^2 + 7}{t^{4/3}} dt$

24. $\int \left(\sqrt[3]{x} + \frac{1}{\sqrt[3]{x}} \right) dx$

$$25. \int \frac{4x^2}{(1-8x^3)^4} dx$$

$$26. \int \sqrt[3]{x}(x-4) dx$$

$$27. \int \sqrt[3]{6-2x} dx$$

$$28. \int \frac{x}{(2x-1)^5} dx$$

$$29. \int \frac{2x}{(1-x)^7} dx$$

$$30. \int \frac{x^2+3}{x^2} dx$$

$$31. \int \frac{2}{\sqrt{t}} dt$$

$$32. \int \frac{y^3}{(1-2y^4)^5} dy$$

$$33. \int 2^{3x} dx$$

$$34. \int (\tan x + \sec x)^2 dx$$

$$35. \int (2x+5)(x^2+5x)^7 dx$$

$$36. \int (3-x)^{10} dx$$

$$37. \int \sqrt{7x+9} dx$$

$$38. \int \frac{x^3}{(1+x^4)^{1/3}} dx$$

$$39. \int e^{5x+2} dx$$

$$40. \int 4 \cos(3x) dx$$

$$41. \int \frac{\sin(\ln x)}{x} dx$$

$$42. \int \frac{3x+6}{x^2+4x-3} dx$$

$$43. \int x 3^{x^2+1} dx$$

$$44. \int \frac{3}{x \ln x} dx$$

$$45. \int \frac{\cos(5x)}{e^{\sin(5x)}} dx$$

$$46. \int_0^{\sqrt{x}} x \sin(x^2) dx$$

$$47. \int (x+3)(x-1)^5 dx$$

$$48. \int x \sqrt{4-x} dx$$