



Antiderivatives

Evaluate the antiderivatives

15. $\int (x + 7) dx$

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

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

23. $\int \sqrt[3]{x^2} dx$

25. $\int \frac{1}{x^5} dx$

27. $\int \frac{x + 6}{\sqrt{x}} dx$

29. $\int (x + 1)(3x - 2) dx$

31. $\int y^2 \sqrt{y} dy$

35. $\int (5 \cos x + 4 \sin x) dx$

39. $\int (\sec^2 \theta - \sin \theta) d\theta$

Solve the Differential equation

57. $f'(x) = 6x, f(0) = 8$

59. $h'(t) = 8t^3 + 5, h(1) = -4$

61. $f''(x) = 2, f'(2) = 5, f(2) = 10$

63. $f''(x) = x^{-3/2}, f'(4) = 2, f(0) = 0$

