

Integration Practice

1. $\int_0^9 |8 - x| dx$
2. $\int x(3x + 7)^{11} dx$
3. $\int xe^{6x} dx$
4. $\int (\ln x)^2 dx$
5. $\int 11 \cos^3 x dx$
6. $\int 6 \tan^2 x \sec^4 x dx$
7. $\int x^3 \sqrt{4 - x^2} dx$
8. $\int \frac{dx}{\sqrt{5 + x - x^2}}$
9. $\int \frac{x^2 - 6x + 1}{x^2 + x} dx$
10. $\int \frac{6}{x(x^2 + 8)^2} dx$
11. $\int_2^\infty e^{-4x} dx$
12. Using the Midpoint Method, calculate the approximation M_5 of the integral $\int_{-5}^{-3} \frac{dx}{x}$.
13. Using Simpson's Rule, calculate the approximation S_6 of the integral $\int_0^1 \cos(3x^5) dx$.