

Integration by Substitution

Evaluate each indefinite integral. Use the provided substitution.

1) $\int -15x^4(-3x^5 - 1)^5 dx; u = -3x^5 - 1$

2) $\int -16x^3(-4x^4 - 1)^{-5} dx; u = -4x^4 - 1$

3) $\int -\frac{8x^3}{(-2x^4 + 5)^5} dx; u = -2x^4 + 5$

4) $\int (5x^4 + 5)^{\frac{2}{3}} \cdot 20x^3 dx; u = 5x^4 + 5$

5) $\int \frac{(5 + \ln x)^5}{x} dx; u = 5 + \ln x$

6) $\int 4 \sec 4x \cdot \tan 4x \cdot \sec^4 4x dx; u = \sec 4x$

7) $\int 36x^3(3x^4 + 3)^5 dx; u = 3x^4 + 3$

8) $\int x(4x - 1)^4 dx; u = 4x - 1$