

Using the Substitution Rule

Using the substitution rule, find the value of the following integrals:

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

2. $\int \frac{(\ln x)^2}{x} dx$

3. $\int_0^1 (3x - 2)^3 dx$

4. $\int_0^7 \sqrt{4 + 3x} dx$

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