

Quiz 1 Practice

Fundamentals of Calculus II

Evaluate the integrals below. State and justify your thought process.

1. $\int (4z^3 + 3z^2 + 2z + 2)dz$

2. $\int_4^9 5\sqrt{z} + \sqrt{2}dz$

3. $\int (\sqrt{x^2 + 12x})(x + 6)dx$

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

5. $\int 3x^2e^{2x^3}dx$

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

Challenge:

$$\int \frac{(3 + \ln(x))^2(2 - \ln(x))}{4x}dx$$