MAT229 Quiz 04, Spring 2025

Name:

Compute the following integrals. Give an exact answer where possible (i.e., no need to approximate with a decimal).

1. (2 pts) $\displaystyle\int_{-0.10}^{0.10} \sin^{-1}(x)\,dx$

2. (2 pts) $\displaystyle\int_{1}^{0} x^2 e^{x^3}\,dx$

3. (2 pts) $\displaystyle\int_{0}^{-1} \frac{3}{2 + 2x^2}\,dx$

4. (4 pts) Demonstrate the method of integration by parts by computing this integral:

$$\int x \sin(x) dx$$