

## Quiz 4

Name: \_\_\_\_\_ Row: \_\_\_\_\_

1. Find the derivative of the function  $y = \ln(e^x + x^2 e^{2x})$ .
2. Find the value of  $x$  where the function  $f(x) = e^{3x} + 4e^{-2x}$  takes its minimum.
3. Evaluate the integral  $\int_0^1 \frac{x^2}{x^3 + 2} dx$ .