Math 131 - Quiz 8

Name _____

April 1, 2026

Score _____

Show all work to receive credit. Supply explanations where necessary.

1. (5 points) Let $f(x) = \tan^{-1}(e^x)$.

   (a) Find $f'(x)$.

   (b) Find an equation of the line tangent to the graph of f at the point where $x = 0$. (Use exact numbers not decimal approximations.)

2. (3 points) Let $g(x) = 2x^3 + x - 10$. Compute $(g^{-1})'(8)$.

3. (2 points) Find dy/dx when $y = xe^{x^2+4}$.