

Math 131 - Quiz 7

October 15, 2025

Name _____

Score _____

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

1. (2 points) Let $h(x) = \tan^5 x$. Find two functions f and g so that $h(x) = f(g(x))$.

2. (6 points) Find the derivative of each function.

(a) $f(x) = \sqrt{x^4 + 1}$

(b) $y = \cos(5x^2)$

(c) $g(x) = (x^2 \sin x)^7$

3. (2 points) Find an equation of the line tangent to the graph of $y = (3x - 5)^4$ at the point where $x = 1$.