

Math 131 - Quiz 5

February 22, 2023

Name _____

Score _____

Show all work to receive full credit. Supply explanations when necessary.

1. (8 points) Use derivative rules to determine each derivative. Do not simplify your answers.

(a) $\frac{d}{dx} (1 + x + 2x^2 + 3x^3)$

(b) $\frac{d}{dx} (5x^3 \tan x)$

(c) $\frac{d}{dx} \left(\frac{x^2 + 1}{\cos x} \right)$

(d) $\frac{d}{dx} \sqrt{\sin x}$

2. (2 points) Find an equation of the line tangent to the graph of $y = x^8 - x$ at the point where $x = 1$.