

October 8, 2020

MAC 2311
Quiz 5

Remember to show all of your work.

Problem 1. Calculate the derivative of each function. No need to simplify your answer.

(a) (2 points) $f(x) = e^{\sqrt{3x+1}}$

(b) (2 points) $f(x) = \sec^2(4x + 1)$

(c) (2 points) $f(x) = \tan(e^{x^2})$

Problem 2. (4 points) Find the equation of the tangent line of the following function at $x = \pi$:

$$f(x) = \frac{e^{\sin(x)}}{\cos(x)} + 3x$$