

Math 131 - Quiz 8

October 25, 2023

Name _____

Score _____

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

1. (5 points) Determine the derivative of each function.

(a) $y = xe^{x^2}$

(b) $f(x) = \ln(x^3 \sin^2 x)$

2. (2 points) Find the exact value of each.

(a) $\arcsin(1/2)$

(b) $\log_3(3^9)$

3. (3 points) Use logarithmic differentiation to find dy/dx when $y = x^{\sqrt{x}}$.