

Math 131 - Quiz 7

March 22, 2023

Name _____

Score _____

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

1. (4 points) Use logarithmic differentiation to find dy/dx when $y = \frac{(x+1)^3(x+2)}{x^5(x+3)}$.

2. (6 points) Determine each derivative.

(a) $\frac{d}{dx} \ln(x^7)$

(b) $\frac{d}{dy} [5^{y^2} + (y^2)^5]$

(c) $\frac{d}{dx} \log_3[(5x+1)^4]$