

Math 157 - Quiz 7

October 12, 2016

Name _____

Score _____

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

1. (7.5 points) Determine the derivative of each function.

(a) $g(t) = \sqrt{3t^2 + t + 12}$

(b) $y = x^4 e^{-x^2}$

(c) $f(x) = \frac{\ln x}{x^3 + x^2 + x}$

2. (2.5 points) Find an equation of the line tangent to the graph of $y = (x^2 + 1) \ln x$ at the point where $x = 1$.