

Math 106 - section 450 (Prof. Rammaha) **Your Name:**_____

GWE

10/10/2013

TA Name:_____

Instructions: You need not simplify. Circle or box your final answer for each problem. No partial credit.

(1) (1 point) If $f(x) = 4x^3 + \frac{1}{x} + 7^x + 2 \arctan x$, then $f'(x)$ is:

(2) (1 point) If $y = e^{\sqrt{x}} \sin(4x)$, then y' is:

(3) (1 point) If $xy + \cos(y^3) + e^{-x} = 1$, then y' is:

(4) (1 point) If $y = \frac{x^2 - \sec x}{\tan x + \ln x}$, then y' is:

(5) (1 points) If $y = \ln \left(\sqrt{4x^2 + 1} + 5 \right)$, then what is $\frac{dy}{dx}$?

(6) (1 points) If $y = \left(1 + \arcsin(x^2)\right)^7$, then what is y' ?

(7) (1 points) If $y = 3x^{-\frac{4}{3}} + 3^{4x} + e$, then what is $\frac{dy}{dx}$?

(8) (1 points) If $y = \frac{3 + x \tan(5x)}{x + (\ln x)^4}$, then $\frac{dy}{dx}$ is:

(9) (1 points) If $f(x) = x^5 \sqrt{x^6 + 3x}$, then what is $f'(x)$?

(10) (1 points) If $y = \sec\left(e^{x^3 + \frac{1}{x^3}}\right)$, then y' is: