

Math 106 - section 550 (Prof. Rammaha) **Your Name:**_____

GWE

10/4/2012

TA Name:_____

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

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

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

(3) (1 point) If $xy^3 + e^y + \sin x = 17$, then y' is:

(4) (1 point) If $y = \frac{x + \tan x}{\sec(3x) + \ln x}$, then y' is:

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

(6) (1 points) If $y = (3x^2 + \arctan(5x))^8$, then what is y' ?

(7) (1 points) If $y = x^{-\frac{3}{4}} + e^{2x} + 1$, then what is $\frac{dy}{dx}$?

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

(9) (1 points) If $f(x) = x^2\sqrt{x^6 + 3x}$, then what is $f'(x)$?

(10) (1 points) If $y = \cos\left(e^{x^3-7x}\right)$, then y' is: