

Name _____

1. (2 points each) Find derivatives of each of the following functions. You should always use proper notation. Your final answer should be in the form of an equation where the right hand side is your derivative formula, and the left hand side is the notation for your derivative.

(a) $g(x) = (x^6 + 5x + 25)^4$

(b) $h = t^5 \sin(3t + 8)$

(c) $f(x) = \tan\left(\frac{1}{x}\right)$

$$(d) \quad W = \left(\frac{6t^2 + 15}{t^5 - 10t} \right)^3$$

$$(e) \quad y = \cos^5(\sqrt{x})$$