

Drill Handout Sections 3.7 and 3.8 October 8, 2019 Name: _____

(1) Calculate the derivatives of

(a)

$$f(x) = \sin^4(x^3 + 1)$$

(b)

$$g(x) = \sqrt{1 + e^{2x}}$$

(2) Use implicit differentiation to find the equation of the tangent line to the curve at the point:

(a)

$$\cos y + y + x^2 = 5 \text{ at } (2, 0)$$

(b)

$$ye^{-x} - y^2 = 0 \text{ at } (0, 1)$$