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