Drill Handout

Section 3.9

October 10, 2019

Name:_____

(1) Calculate the derivatives of

(a)

$$f(x) = x \ln|\cos x|$$

(b) $g(x) = \ln\left(\frac{x^3 - 1}{x^4}\right)$

(c) (Hint: Take the natural logarithm of both sides and use implicit differentiation.)

$$y = x^{x^2 + 1}$$

(d) $h(x) = 10^x \tan x$

(e)
$$y = \frac{2^{x^2 + 1}}{x - 1}$$