

MATH 135: Quiz 11

November 18, 2014

Name: _____ Sec: _____

1. Find the vertical and horizontal asymptotes of the following functions

$$f(x) = \frac{e^{3x} + 4}{e^{2x} - 8}.$$

$$g(x) = \frac{e^{4x} - 5}{e^{4x} + 2}$$

2.

(a) Use implicit differentiation to find $\frac{dy}{dx}$ if x and y satisfy the equation

$$x^2y + 3y^2 = -2x^2 + 4y + 8$$

(b) Use part (a) to write the equation for the tangent line to the graph of the equation above at the point $(1, 2)$