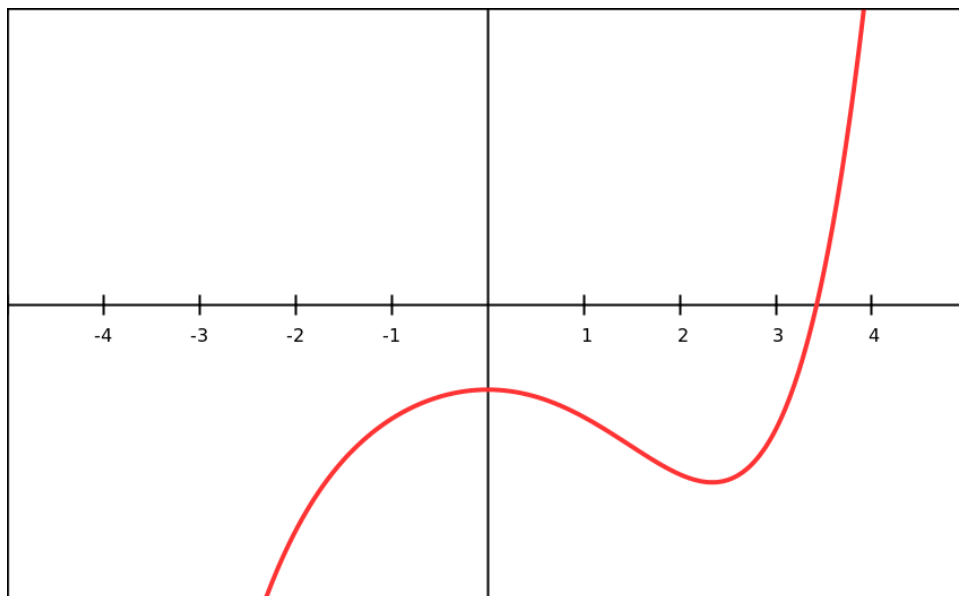Name _____

MATH-1951
Quiz 3 - (2.7, 2.8, 3.1)
Answer the following questions, and show your work. Scientific calculator only.

[1] (3 points total) For the function f whose graph is given, arrange the following numbers in increasing order. No work required.

$$0 \quad f'(-1) \quad f'(3) \quad f'(1)$$

[2] (4 points total) Given the function $f(x) = -3x^2 + 1$.

a) (2.5 points) Find the derivative to the function using the defintion of the derivative.

b) (1.5 points) Find the equation of the tangent line to f at x=1.

[3] (3 points total) Find the derivative of the function $f(x) = e^x + x^e + e^e$