## $assignment 4\_fall\_2022$

November 22, 2022

## Assignment 4: MATH 425/625 Numerical Analysis

## Your Name

Question 1: Use the TensorFlow library to implement the modified Newton's method for finding the non-simple root (i.e., multiplicity m > 1) of  $f(x) = e^x - x - 1$ . You should use TensorFlow for automatic differentiation in order to compute the derivatives.