

MA 8019: Numerical Analysis I – Homework #3

Name:

Student ID number:

Please write the MATLAB code of Newton's method for solving the system of equations:

$$\begin{cases} xy - z^2 - 1 = 0, \\ xyz + y^2 - x^2 - 2 = 0, \\ e^x + z - e^y - 3 = 0, \end{cases}$$

with initial guess $(x, y, z)^\top = (1, 1, 1)^\top$.