



ODE.

## Lab #8

Instructor: Dr. Ha Viet Uyen Synh.

1. Given

$$\frac{dy}{dx} = -200,000y + 200,000e^{-x} - e^{-x}$$

Develop a program for the implicit Euler method for the above ODE to obtain a solution from  $x=0$  to 2 using a step size of 0.1 with  $y(0)=0$ .