

Math107L - Project 1

Due: May 1,2007

April 24, 2007

$$y' = te^{3t} - 2y, \quad 0 \leq t \leq 1, \quad y(0) = 0, \quad (1)$$

1. (30 points) Use Forward Euler method to solve (1) with step size $h = 0.5$.
2. (30 points) Use Taylor's method of order two to solve (1) with step size $h = 0.5$.
3. (40 points) Use 4th order Runge Kutta method(RK4) to solve (1) with step size $h = 0.5$.