

Math 285

Computer Lab #1

Solve the IVP numerically using Euler's Method, Modified Euler's Method and the Runge Kutta Method.

$$y' = -2xy + x$$

1.  $y(0) = -1$   
 $h = .05$   
 $y(1)$

$$y' = x^2 - y^2$$

2.  $y(0) = 1$   
 $h = 0.05$   
 $y(.5)$