

MA 112 - Calculus II
Worksheet # 9
Professor Broughton

Name: _____

Box #: _____

Euler's method

1. Solve the initial value problem

$$y' = \frac{-y}{x}, \quad y(1) = 1$$

2. Fill in the table Euler's method with a step size of 0.5 and predict the value at $x = 3$

n	x_n	y_n	y'_n
0	1	1	
1			
2			
3			
4			

3. Compute the error of the Euler approximation at $x = 3$.