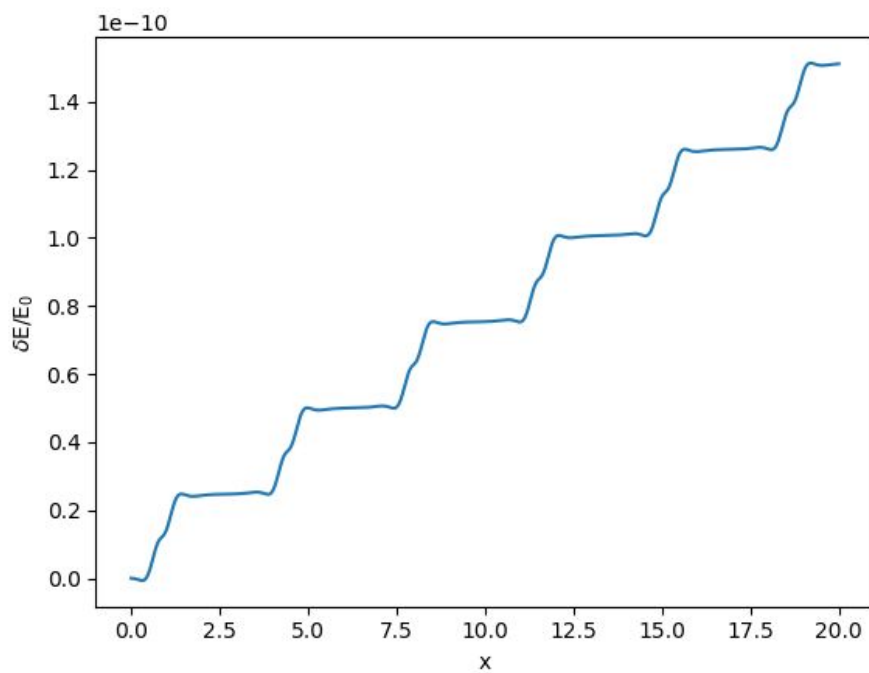
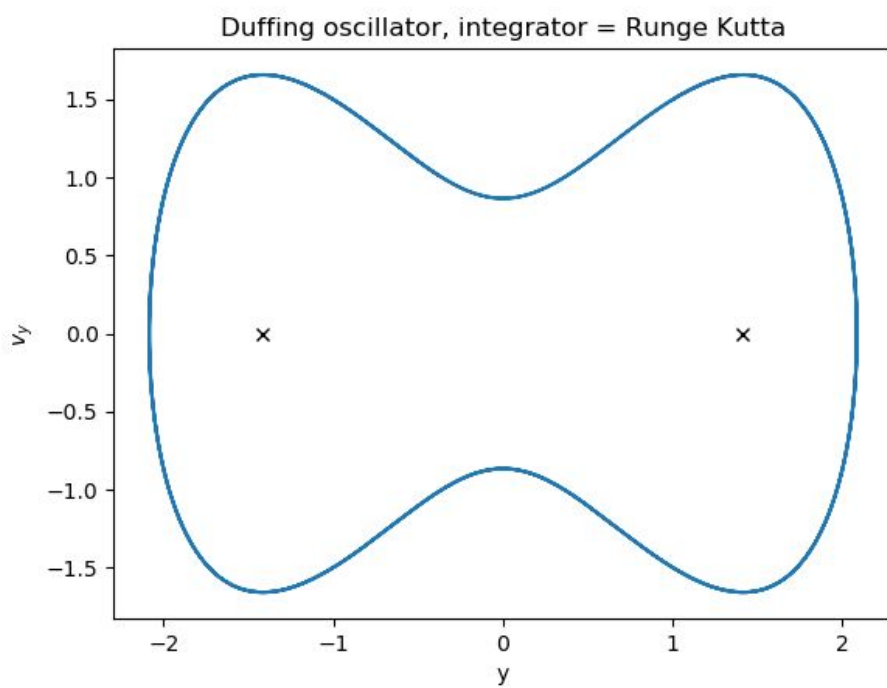


Rachel Buttry  
PHYS 305  
Homework #2

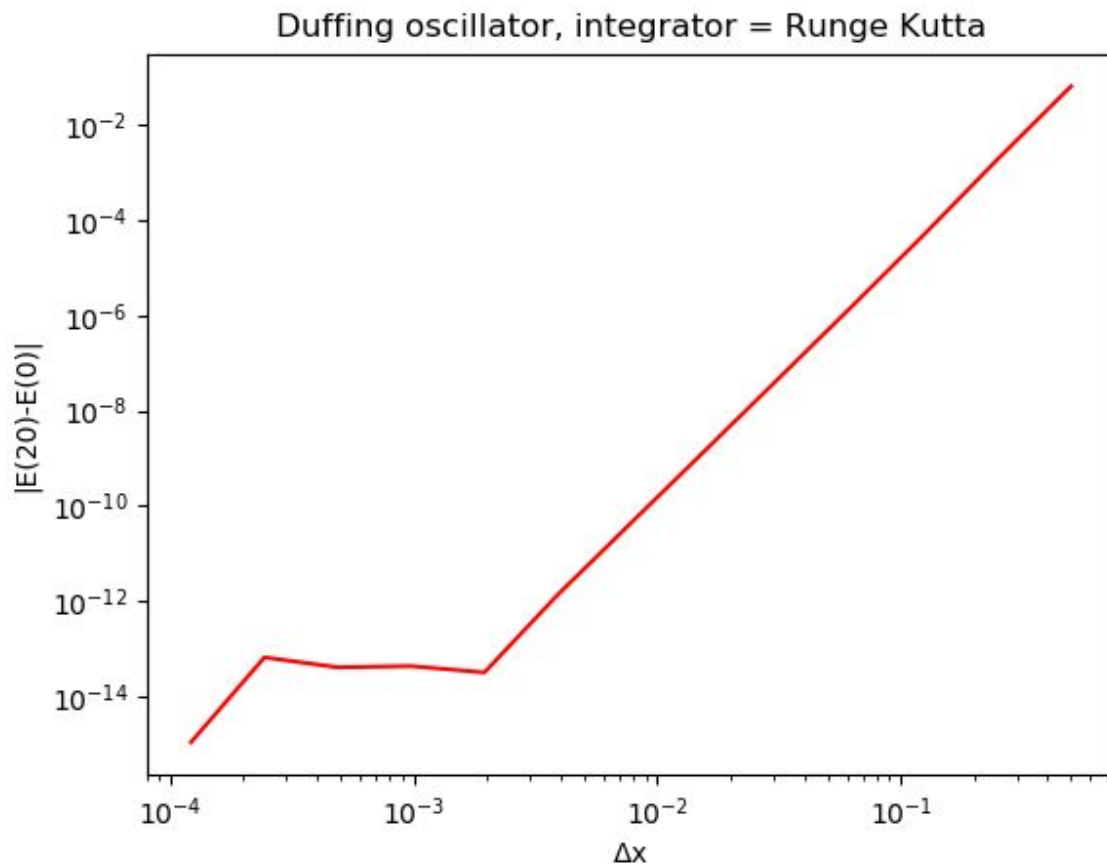
**Problem 1**

a) See code

b) Plots:



c)  
Plot:



d) The scheme is reversible

After running the integrator backwards, it return to the same initial conditions

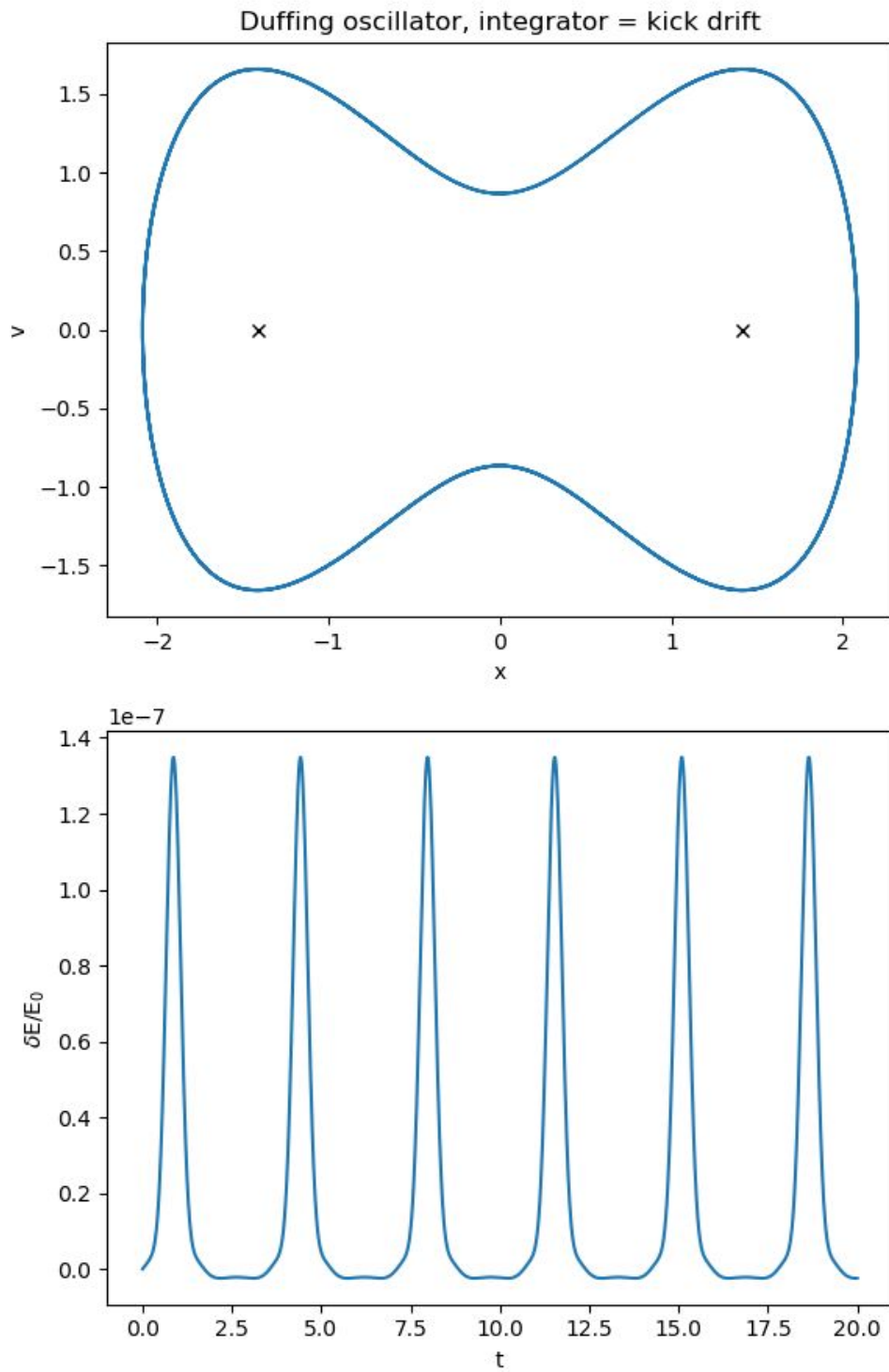
Initial Conditions: 0.0 [ 1. 1.5]

Reverse ending point: 0.0 [ 1. 1.5]

## Problem 2

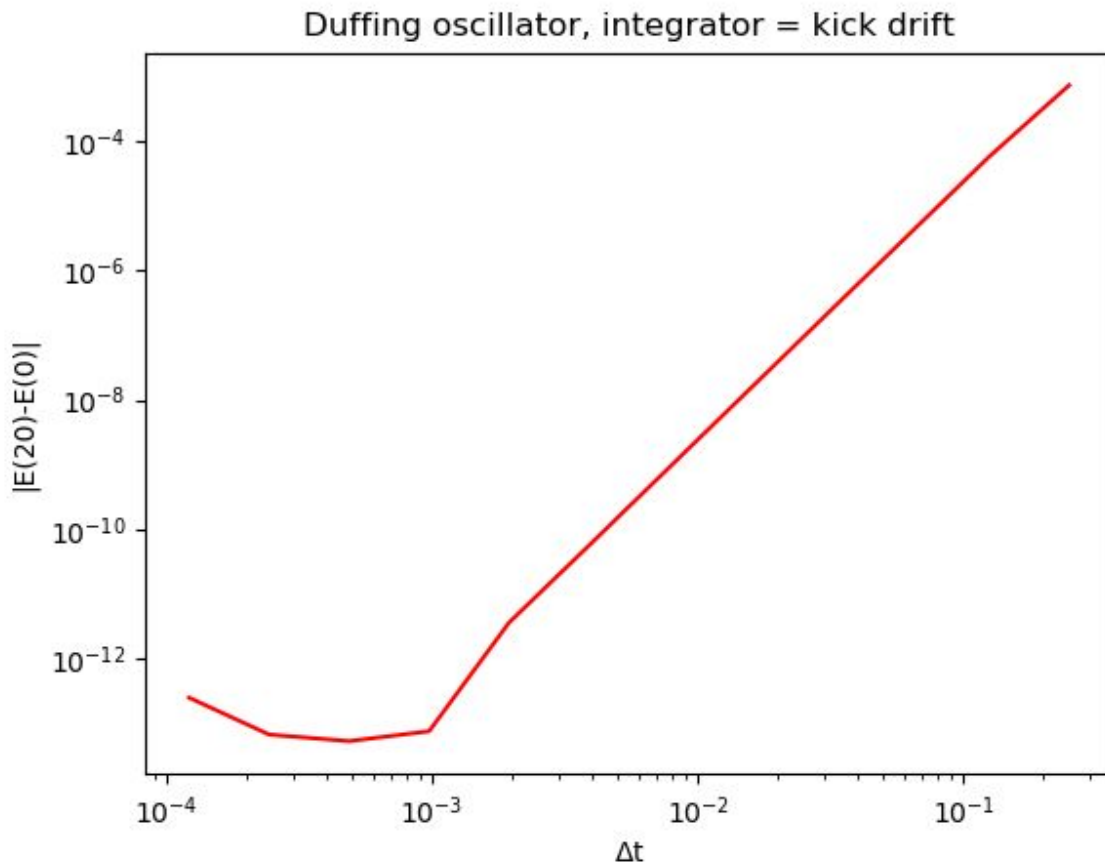
a) See code

b) Plots:



c)

Plot:



d) The Scheme is reversible

After running the integrator backwards, it return to the same initial conditions

Initial Conditions: 0.0 [ 1. 1.5]

Reverse ending point: 0.0 [ 1. 1.5]