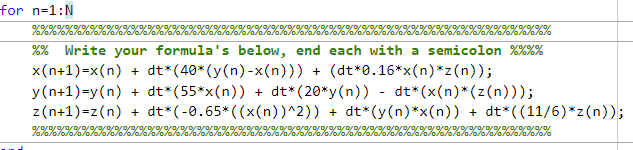
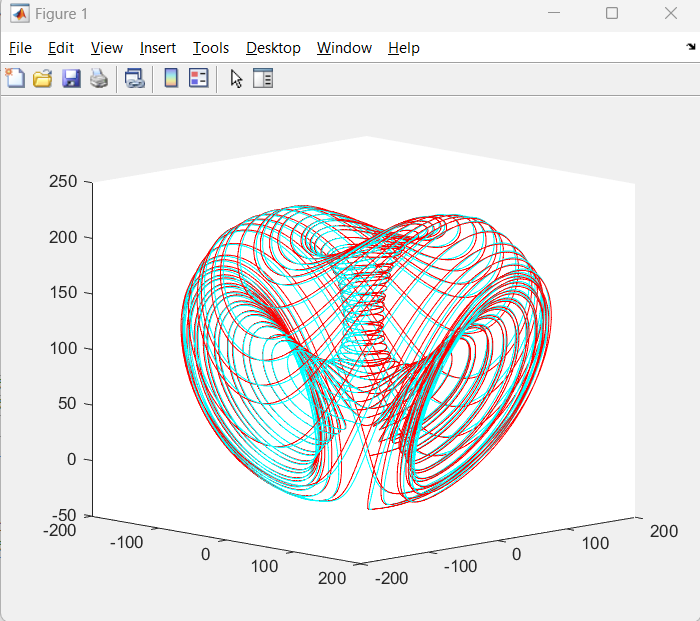
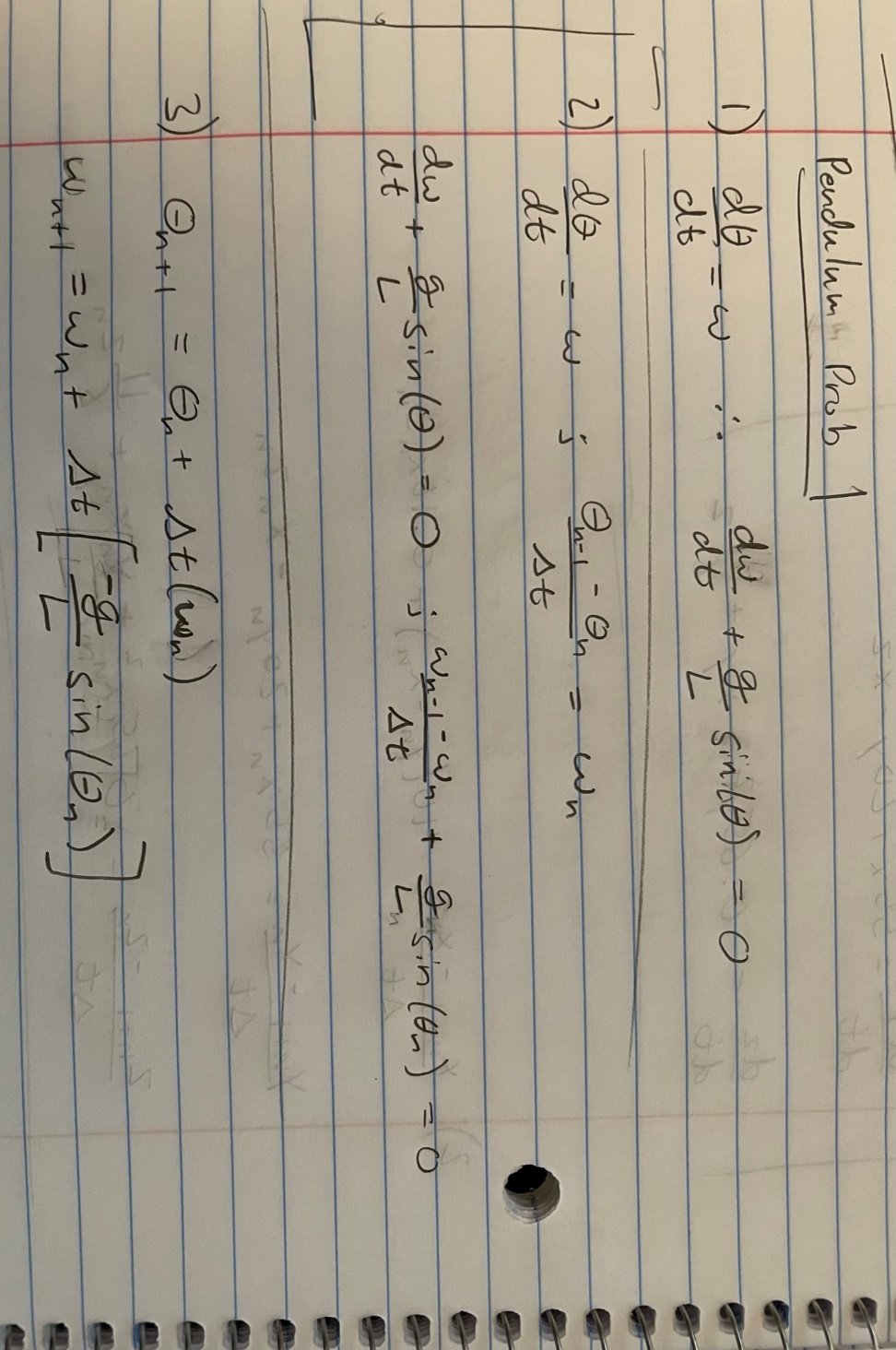
**Problem 1**

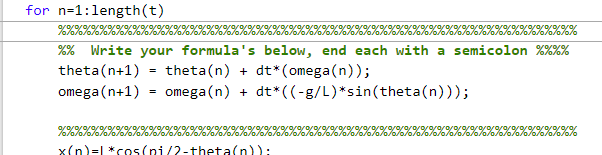
Diagram, schematic

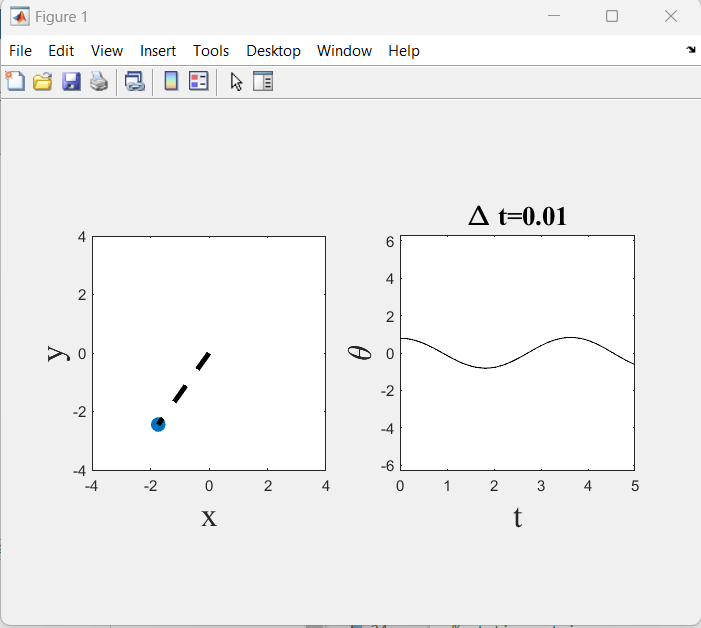
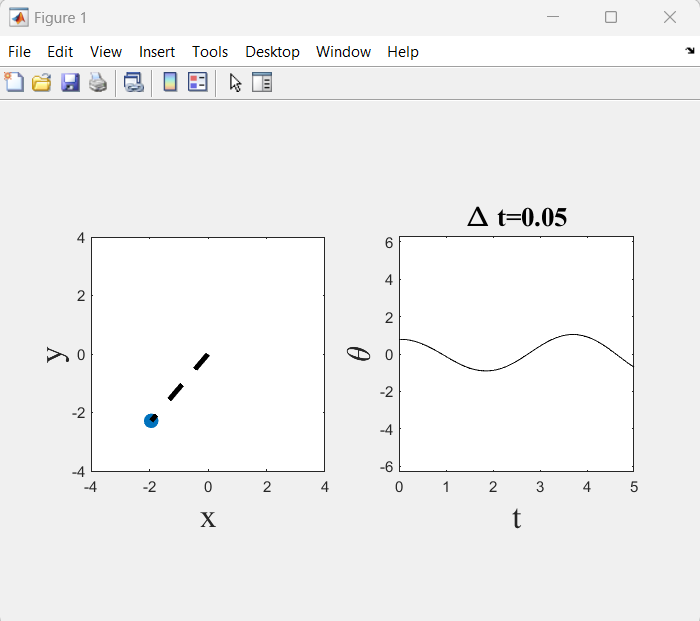
Description automatically generated

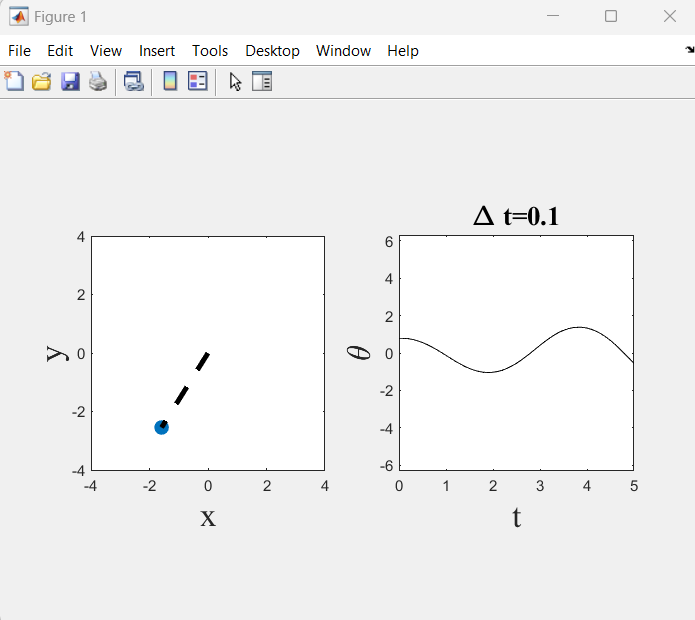


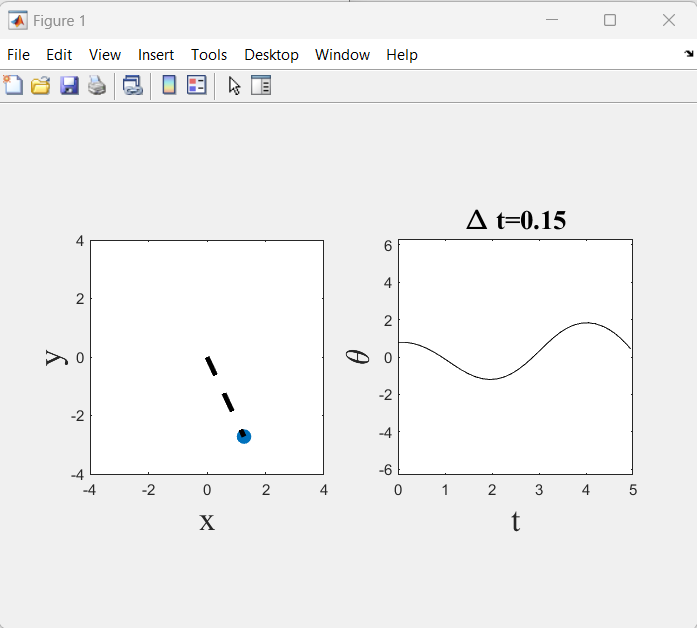


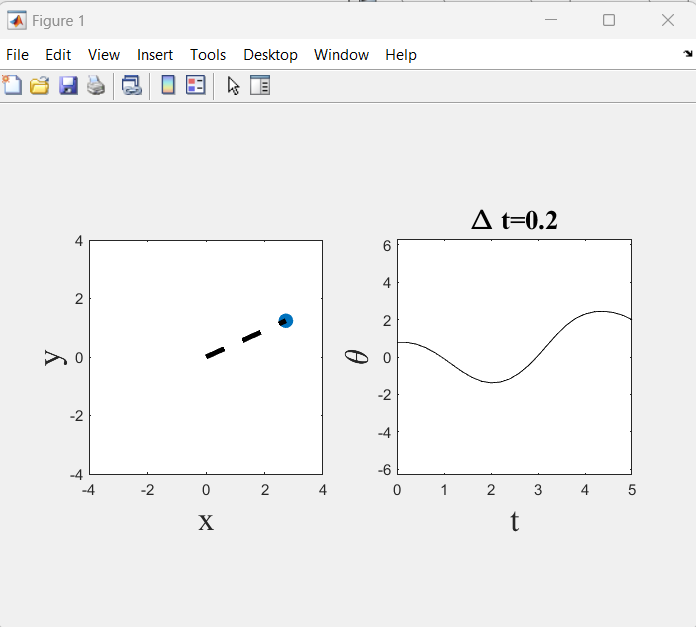
**Problem 2**





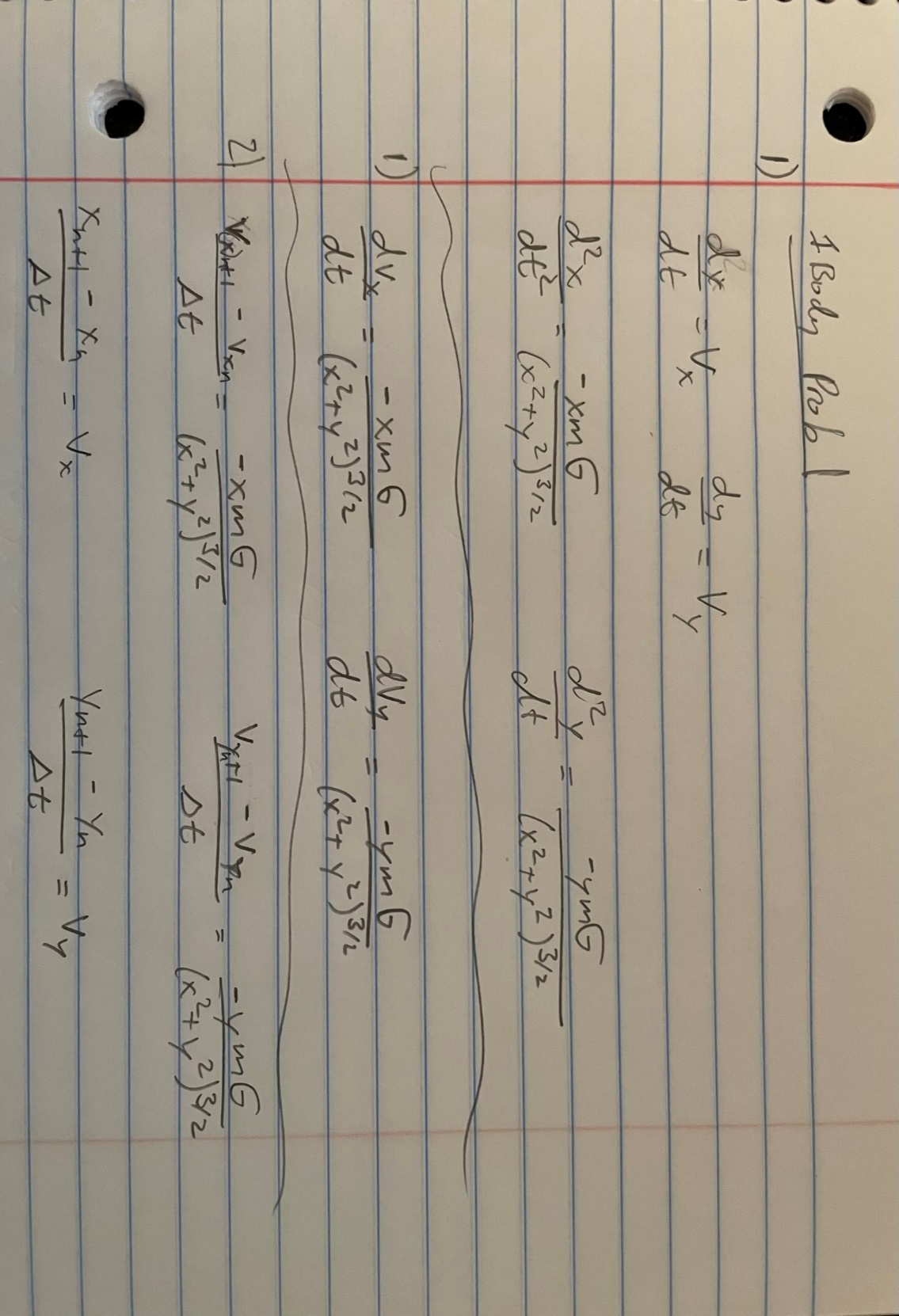




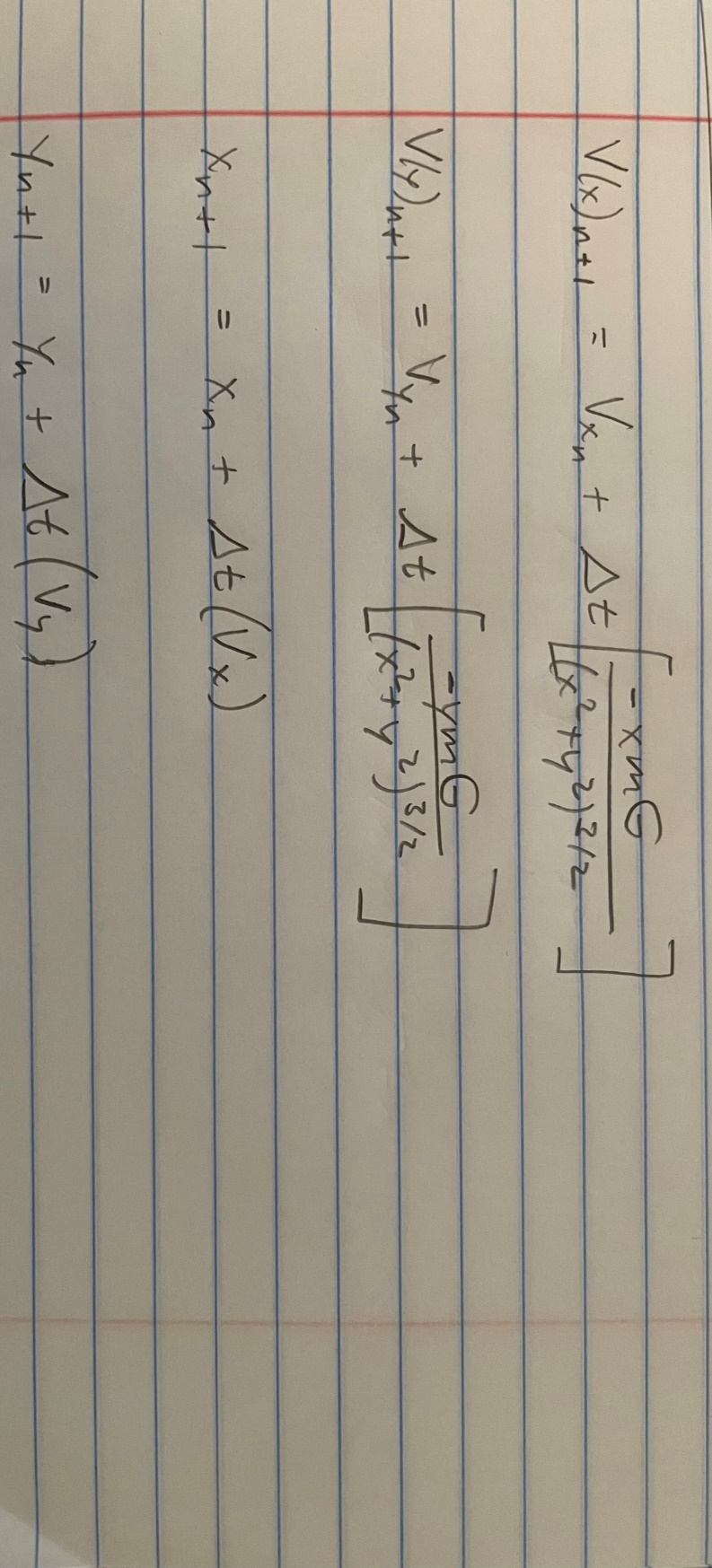


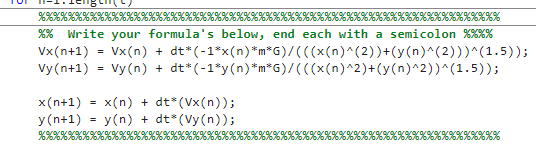
5) as dt decreases between 0.2 and 0.01, the observed output on the theta vs. time graph develops a more consistent amplitude on the second “hump.” The lower the number the closer the output seems to represent a regular cosine function.

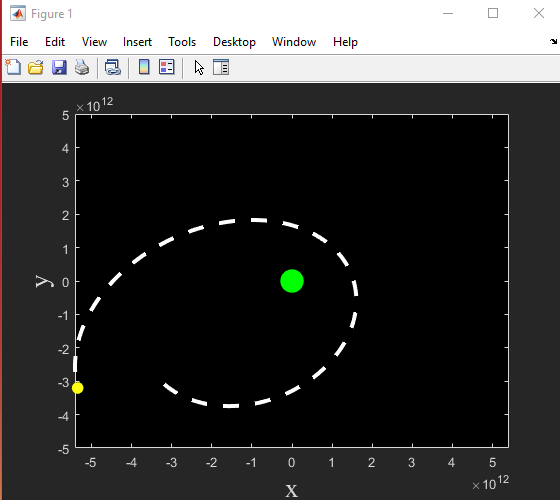
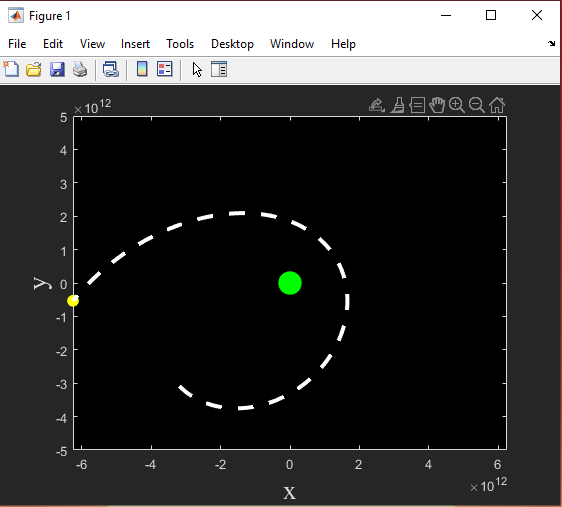
6) ask question in class



**Problem 3**

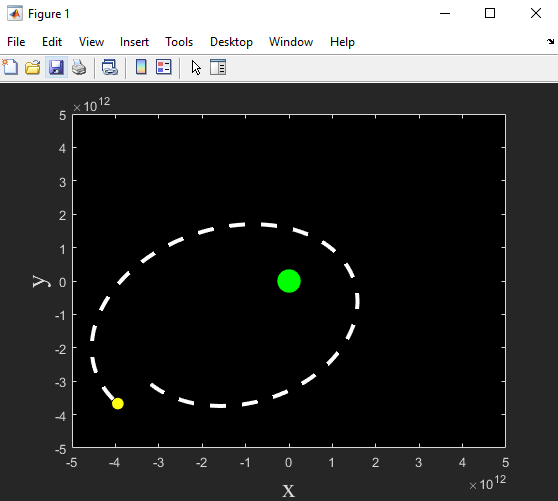
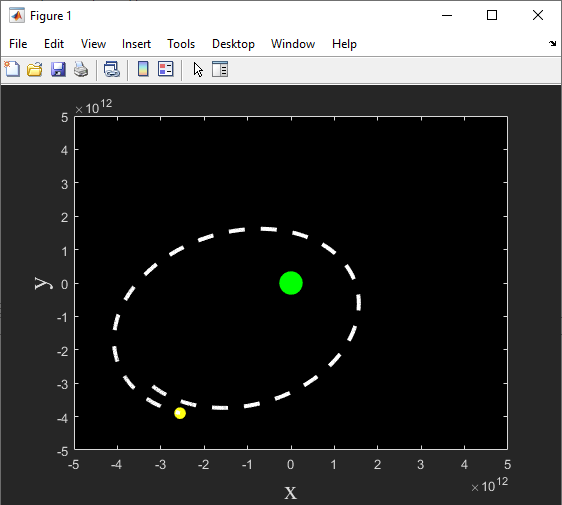






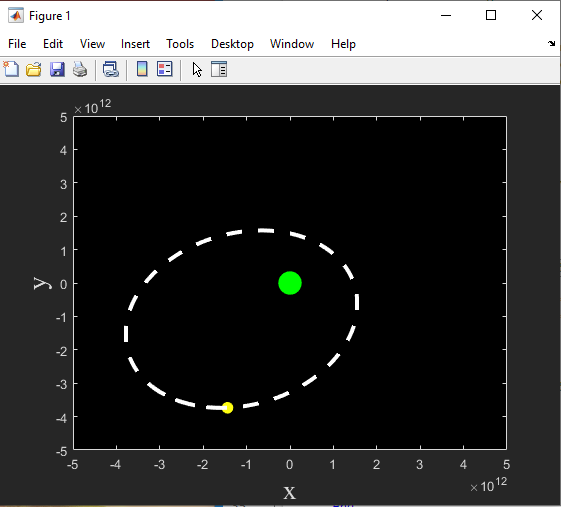
dt = 50

dt = 100



dt = 10

dt = 25



dt = 0.1

5) The larger the value of dt, the less “perfect” (if that’s the right word) the orbit seems to be. Very large values for dt begin to barely represent any orbit (at least in the time frame that the simulation is running).

6) ask question in class