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MA375
Dr. Aquino

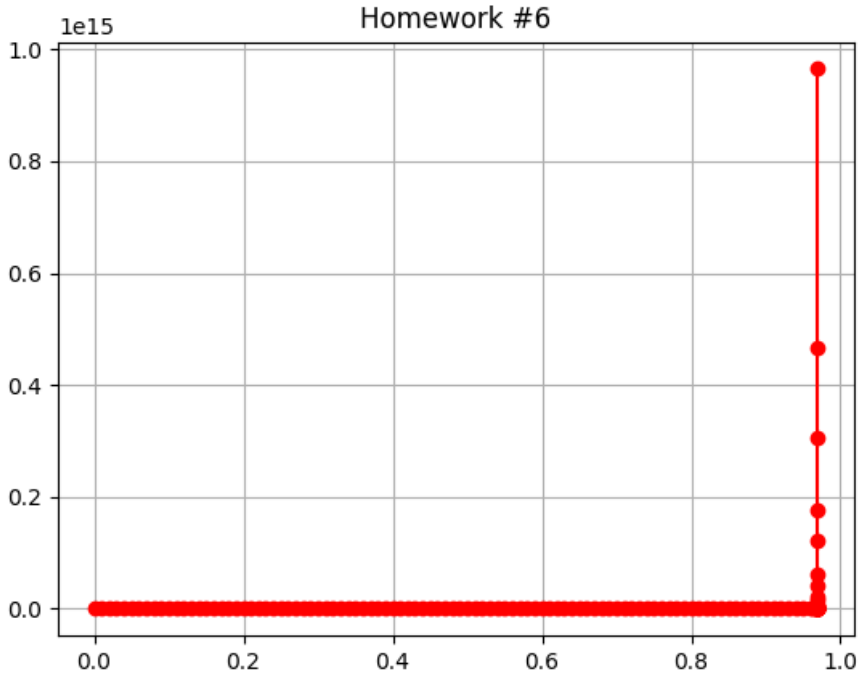
Homework #6: Differential Equations

a. Approximate solutions of t at the following values using Runge-Kutta method:

t	Solution
0.8	5.848616804703934
0.9	14.304863707759258
0.95	50.47139138898155

```
henry@Henrys-MacBook-Pro Song_Henry_Homework #6 % python3 Problem1.py
Solution @ t = 0.80 : 5.848616804703934
Solution @ t = 0.90 : 14.304863707759258
Solution @ t = 0.95 : 50.47139138898155
Solution @ t = 0.97 : 965175654254862.9
```

b. Plot of part a solution:



c. When approximating the solution at t=1, I run into an error where the largest t value is 0.97. I thought this unusual until looking at the graph, where it appears that the solution at t = 1 approaches infinity. It would seem that the largest t value still calculatable is 0.97, which gives us a solution 965175654254862.9 (see above screenshot of program), while the true value of t = 1 is infinity.