1. Get equations (2) and (3) as a functions ẍ and ÿ respectively. Let these equations be known as fX and fY which we will use for the RKN algorithm.
   1. is fX.
   2. is fY.
2. Also make functions for P1 and P2 which are both dependent on x, y and µ.
3. Declare our time step variable h and take T/h to find the total number of steps required to calculate out.
4. Utilizing an RKN algorithm we can find xn+1 and ẋn+1 through the fX function with known xn and ẋn.
5. Repeat step 4 with the y values.
6. With our new values save them to a matrix for plotting later
7. Set the old n variables to the value of the n+1 variables
8. Repeat 3-7 until each time step has been calculated.

CRAIG PUT THE LINERAIZATION STUFF HERE