Objective: Solve/approximate differential equations with Euler’s method

Yn+1 = Yn + h(f’(x))

1. Before executing: Initial condition, differential equation, and step size
2. Formula for Euler’s method Yn+1 = Yn + h(f’(x))

a) Using a computer system (preferably MatLab, Octave, Python, C, C++, etc.), find the approximate solution **to y '=x 2 + y 2 , y(0) = 0**. Use a step size of **h = 0.1** and write down the approximate values of **y(1), y(2) and y(3)**.

(b) Repeat with h = 0.01.