

MATLAB project 1

Consider the initial value problem

$$dy/dt = y(2 - ty), \quad y(0) = 1$$

Use Euler's method to determine the approximate values of the solution at $t = 1, 1.5, 2,$ and 2.5 with grid sizes:

(a) $h = 0.01$

(b) $h = 0.05$

(c) $h = 0.10$

For your work to be complete, you must list your results in tabular form, similar to Table 2.7.3 on p.107 in your book. You must also include in your report a printout of the code that you used for obtaining the above results.

The project must be completed and handed to your instructor by Monday, March 4.