2019 MATH3201 Prac Week 5

(1) Solve the IVP $y'(t) = y^2 - y^3$, $y(0) = 3$ using the explicit Euler method with various step sizes $h = 0.5, 0.4, \ldots, 0.01$

(2) Solve the initial value problem $y'(t) = \frac{2}{t}y + t^2 e^t$, $1 \le t \le 2$, $y(1) = 0$ using RK2 or midpoint and RK4.

(3) Solve the IVP $y'(t) = -5y(t)$, $y(0) = 2$ using the explicit Euler method with tep size $h = 0.5$.

(4) Work on your assignment.