

2b

$$TUII = \frac{9+1+5+1+8+7+2+8+9}{9} \approx 5.555\bar{5} = \alpha$$

$$y(0) = -1$$

time step

① define predictor $y^* = y_n + h \times \frac{dy}{dt}$ (predicted value @ next step)

② define corrector $y_{n+1} = y_n + \frac{h}{2} \left(\frac{dy}{dt} \Big|_{t_n, y_n} + \frac{dy}{dt} \Big|_{t_{n+1}, y^*} \right)$
 corrected value

in python I'll probably make an
 enumerated for loop with the table
 "+" values