Tutorial

Runge-Kutta method:

1. Given $\frac{dy}{dx} = x^3 + y, y(0) = 2$ Compute y(0.2) , y(0.4) & y(0.6) by R.K method
2. By R.K method, solve $\frac{dy}{dx} = \frac{y^2 - x^2}{y^2 + x^2}, y(0) = 1$for x=0.2 and x=0.4 with h=0.2.
3. Using R.K method of fourth order find y(0.1) and y(0.2) for the initial value problem $\frac{dy}{dx} = x + y^2, y(0) = 1$