

1. Use the Runge-Kutta method and Euler's method with $h=0.1$ to find approximate values for the solution of the initial value problem

$$y' + 2y = x^3 e^{-2x},$$

at $x=1$

Given : $y(0)=1$.

2. Find Solution using Simpson's 1/3, Simpson's 3/8, trapezoidal rule

x	f(x)
0.0	1.0000
0.1	0.9975
0.2	0.9900
0.3	0.9776
0.4	0.8604

3. Find Solution of an equation $1/x$ using Simpson's 1/3 rule
 $x_1 = 1$ and $x_2 = 2$
Step value (h) = 0.25