Computational Mathematics
Exercises Set: 3 (deadline Feb 23/2022)

1. Use the simple Simpson's h/3 rule and the same rule with n=8 to calculate the integral $\int_0^3 x \exp(2x) dx$

2. Solve the following differential equation from t=0 until t=2 with y(0)=1
   $\frac{dy}{dt} = yt^2 - 1.1y$
   using (a) Euler's method with h=0.5 and h=0.25 (b) Runge Kutta 4th order with h=0.5 and h=0.25