Runge Kutta Method

Algorithm

1. Start

2. Define function f(x,y)

3. Read values of initial condition(x0 and y0),

number of steps (n) and calculation point (xn)

4. Calculate step size (h) = (xn - x0)/n

5. Set i=0

6. Loop

k1 = h \* f(x0, y0)

k2 = h \* f(x0+h/2, y0+k1/2)

k3 = h \* f(x0+h/2, y0+k2/2)

k4 = h \* f(x0+h, y0+k3)

k = (k1+2\*k2+2\*k3+k4)/6

yn = y0 + k

i = i + 1

x0 = x0 + h

y0 = yn

While i < n

7. Display yn as result

8. Stop