```matlab
% Roll No: 207
% Batch: C3
% Date: 11-05-2023
% Name: Mohanish Khambadkar
% Assignment 10

% Euler's method

x= 0;
y = 1;
h = 0.025;
while x<=0.1
  y = y + h*euler(x, y)
  x=x+h
end

 % Euler's modified method

 x=0;
 y=0;
 h=0.1;
 while x<=0.31
  y = y + h*meuler(x+h/2, y+h*meuler(x,y)/2)
  x=x+h
 end
```

y =

     1

y =

    1.0250

x =

    0.0250

y =

    1.0756

y =

    1.0519

x =

    0.0500

y =

   1.1545

y =

   1.0808

x =

   0.0750

y =

   1.2368

y =

   1.1117

x =

   0.1000

y =

   1.3228

y =

   1.1447

x =

   0.1250

y =

    1

y =

   0.9500

y =

0.0950

x =

0.1000

y =

0.9050

y =

0.8598

y =

0.1810

x =

0.2000

y =

0.8190

y =

0.7781

y =

0.2588

x =

0.3000

y =

0.7412

y =

0.7042

```
y =

    0.3292


x =

    0.4000
```