```
commandwindow
clear
clc
close all
y0 = 1.4
h = 0.1
t = [0:0.1:0.5]; y(1)=y0;
n = length(t)
for i=1:n-1
    dy = 2*t(i)+(y(i)^2)
    y(i+1)= y(i) + h*dy
end
table = [t' y']
plot(t,y)
ylabel('Response')
xlabel('Time(hour)')
grid on
grid minor
legend('Dynamic Response(y)')
```

y0 =

1.4000

h =

0.1000

n =

6

dy =

1.9600

y =

1.4000 1.5960

dy =

2.7472

y =

1.4000 1.5960 1.8707

dy =

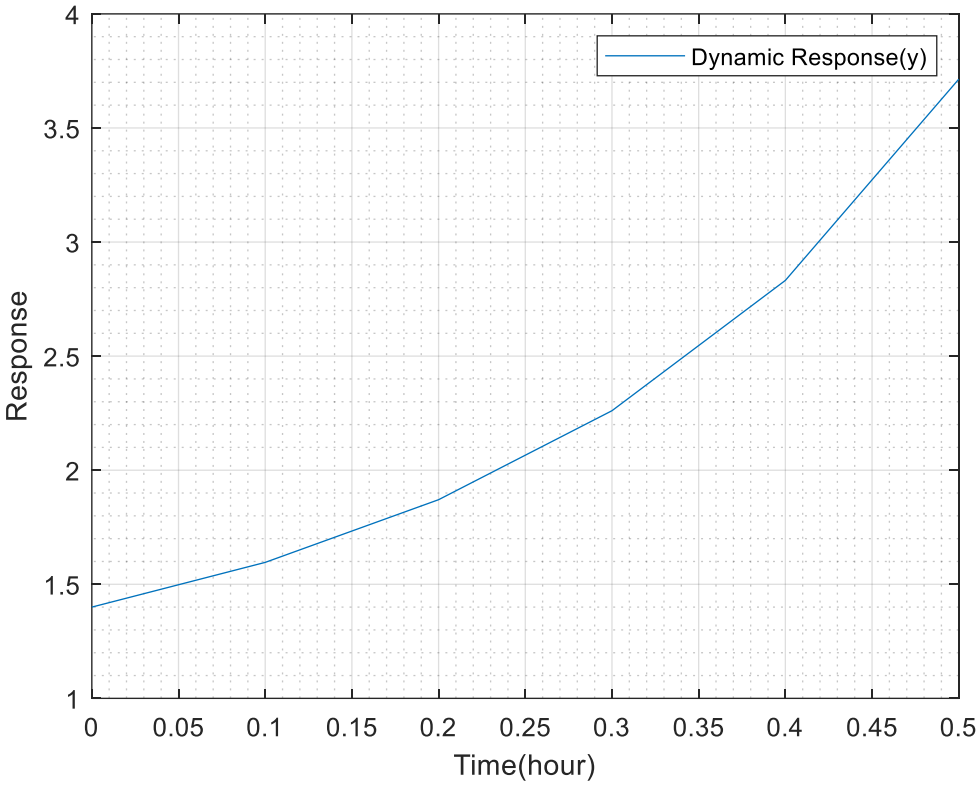
3.8996

y =

1.4000 1.5960 1.8707 2.2607

dy =

```
   5.7107

y =

   1.4000    1.5960    1.8707    2.2607    2.8317

dy =

   8.8188

y =

   1.4000    1.5960    1.8707    2.2607    2.8317    3.7136

table =

         0    1.4000
    0.1000    1.5960
    0.2000    1.8707
    0.3000    2.2607
    0.4000    2.8317
    0.5000    3.7136
```


Dynamic Response(y)
Response
Time(hour)
4
3.5
3
2.5
2
1.5
1
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
0.45
0.5