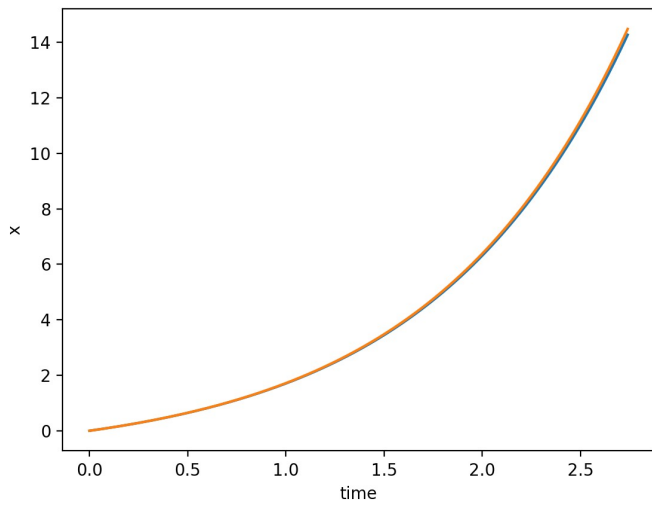


```

1 import math
2 import matplotlib as mpl
3 import matplotlib.pyplot as plt
4 step = 0.01
5 time = 10000
6 x =[0]
7 t =[0]
8 xx=[0]
9 for i in range(0,time):

```



```

10     x +=[x[i]+(x[i]+1)*step] 11     t
+=[t[i]+ step]
12     xx += [math.exp(t[i+1])-1] 13
if (x[i+1])>15:
14         break
15
16 plt.plot(t,x,label="Euler method")
17 plt.plot(t,xx,label="Exact result")
18 plt.xlabel('time')
19 plt.ylabel('x')
20 plt.show()

```

