

```
import numpy as np
from scipy.integrate import odeint
```

```
def ode(y, t):
    y = y[0]
    k = 1.4e-3
    dydt = -k*y
    return [dydt]
```

Initial conditions
 $y_0 = 2$ ← $t[0], y_0$

```
t = np.linspace(0,2000,11)
results = odeint(ode, [y0], t)
y = results[:,0]
print t
print y

print t[3]
print y[3]
```

Index	Vector t	Vector y
0	0.0	2.0
1	200.0	1.51156746222
2	400.0	1.14241815479
3	600.0	0.863421078399
4	800.0	0.652559609924
5	1000.0	0.493193939903
6	1200.0	0.3727479595
7	1400.0	0.281716839817
8	1600.0	0.212917000706
9	1800.0	0.160919202512
10	2000.0	0.12162011277

Solutions:
 $y(t)$