

```
1 import numpy as np
2
3
4 def simp_intg(a, b, N):
5     h = (b - a) / (N - 1)
6     x = np.linspace(a, b, N)
7     f = np.exp^(-x)
8     I_simp = (h/3) * (f[0] + 2*sum(f[:N-2:2]) \
9         + 4*sum(f[1:N - 1:2]) + f[N-1])
10
11     return print(f"Simpson integration:{I_simp}")
12
13
14
15
```