```
1 C:\Users\gince\.conda\envs\SN-Project-1.2-GPU\python.exe C:/Users/gince/
  Documents/GitHub/Ulaval_projects/PHY-2007_physique_atomique/Projet/main.py
3 Problem 2.a
4
5 -----
6 Transition (3 -> 2):
8 R's mean / rs mean normalized coeff = 5.48721e-04
9 reference R^s / rs_mean_normalized_coeff = 2.74669e-03
10
11 omega / omega_normalized_coeff = 1.38889e-01
12 reference omega / omega_normalized_coeff = 1.38889e-01
13 -----
14 -----
15 Transition (4 -> 2):
16
17 R^s_mean / rs_mean_normalized_coeff = 1.86230e-04
18 reference R^s / rs_mean_normalized_coeff = 5.24360e-04
20 omega / omega_normalized_coeff = 1.87500e-01
21 reference omega / omega_normalized_coeff = 1.87500e-01
22 -----
23 -----
24 Transition (5 -> 2):
25
26 R^s_mean / rs_mean_normalized_coeff = 8.74555e-05
27 reference R^s / rs_mean_normalized_coeff = 1.57596e-04
28
29 omega / omega_normalized_coeff = 2.10000e-01
30 reference omega / omega_normalized_coeff = 2.10000e-01
31 -----
32 -----
33 Transition (6 -> 2):
35 R<sup>s_mean / rs_mean_normalized_coeff = 4.84346e-05</sup>
36 reference R^s / rs_mean_normalized_coeff = 6.06110e-05
37
38 omega / omega_normalized_coeff = 2.22222e-01
39 reference omega / omega_normalized_coeff = 2.22222e-01
41
42 Problem 2.b
43
44 ---
45 I_{(3, 2)} / I_{(4, 2)} = 2.63e+3 [-]
46 x position (3, 2): -4.42e-03 [m]
47 ---
48 ---
49 I_{(4, 2)} / I_{(4, 2)} = 1.00e+0 [-]
50 x position (4, 2): 0.00e+00 [m]
51 ---
52 ---
53 I_{(5, 2)} / I_{(4, 2)} = 2.36e-2[-]
54 x position (5, 2): 2.49e-03 [m]
55 ---
56 ---
57 I_{(6, 2)} / I_{(4, 2)} = 2.89e-3 [-]
58 x position (6, 2): 3.96e-03 [m]
59 ---
60
61 Problem 2.c
62
63 ---
64 I_{(3, 2)} / I_{(4, 2)} = 2.63e+3 [-]
```

```
File - main
  65 x position (3, 2): -4.42e-03 [m]
 67 ---

68 I_(4, 2) / I_(4, 2) = 1.00e+0 [-]

69 x position (4, 2): 0.00e+00 [m]
  70 ---
 71 ---
72 I_(5, 2) / I_(4, 2) = 2.36e-2 [-]
73 x position (5, 2): 2.49e-03 [m]
  74 ---
 75 ---
 76 I_{(6, 2)} / I_{(4, 2)} = 2.89e-3 [-]
 77 x position (6, 2): 3.96e-03 [m]
 79 --- elapse time : 1.75 s ---
 81 Process finished with exit code 0
 82
```