

# Code Listing

## 1 Code examples

```
1 #!/usr/bin/env python
2 # -*- coding: utf-8 -*-
3
4 # Author   : Bhishan Poudel
5 # Date    : Mar 26, 2016
6
7 # Polynomial :  $p[0] * x^n + p[1] * x^{(n-1)} + \dots + p[n-1]*x + p[n]$ 
8 # Coeffs     :  $p_0, p_1, p_2, \dots, p_n$ 
9
10 # Program : solve  $x^3 - 50x^2 + 185x - 924.5 = 0$ 
11
12 # Imports
13 import numpy as np
14
15 # scriptE = 0
16 # To solve  $x^2 - 9.245x + 18.5 = 0$ 
17 coeff = [1, -9.245, 18.5]
18 print("\nfor scriptE = 0")
19 print(np.roots(coeff))
20
21
22 # scriptE = -0.02
23 # To solve  $scriptE * x^3 + x^2 - 9.245x + 18.49 = 0$ 
24 coeff = [-0.03, 1, -9.245, 18.49]
25 print("\nfor scriptE = -0.02")
26 print(np.roots(coeff))
27
28
29 # scriptE = 0.03
30 coeff = [0.03, 1, -9.245, 18.49]
31 print("\nfor scriptE = 0.03")
32 print(np.roots(coeff))
33
34 # scriptE = 0.025
35 coeff = [0.025, 1, -9.245, 18.49]
36 print("\nfor scriptE = 0.025")
37 print(np.roots(coeff))
38
39 # scriptE = 0.045
40 coeff = [0.045, 1, -9.245, 18.49]
41 print("\nfor scriptE = 0.045")
42 print(np.roots(coeff))
```

```

43
44
45 #for scriptE = 0
46 #[ 6.31587127  2.92912873]
47
48 #for scriptE = -0.02
49 #[ 18.41942521  12.16281345   2.75109468]
50
51 #for scriptE = 0.03
52 #[-41.18015683   4.5764082   3.2704153  ]
53
54 #for scriptE = 0.025
55 #[-48.02144629   4.83803695   3.18340934]
56
57 #for scriptE = 0.045
58 #[-29.62518188+0.j          3.70147983+0.41064467j
      3.70147983-0.41064467j]

```

Listing 1: Python example

The next code will be directly imported from a file:

```
1 // indent -linux -l120 -i4 -nut a.c
2 #include <stdio.h>
3
4 int main()
5 {
6     printf("This is my first C program\n");
7
8     return 0;
9 }
10
```

Listing 2: C sample code

## Listings