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1 # Regular Falsi
2
3
4 ## Description
5
6 Finding roots of functions (e.g. high-polynomials,
  trigonometric functions, etc.).
7
8
9
10
11
12 ### Dependencies
13
14 Python 3.7 and higher
15
16 ### Installing
17
18 The is no installing required,import and use.
19
20
21 ###Running the tests
22 A function we used in the code to look for roots
23
24 ```
25 import math
26 lambda x: 2*math.cos(math.e**((0.2*x)))
27 ```
28 ### Executing program
29 The user must enter 2 numbers and another number which will
   be the epsilon
30
31 For example:
32 ```
33
34 The func:2cos(e0.2x)
35
36 import math
37 f=lambda x: 2*math.cos(math.e**((0.2*x)))
38 # Input Section
39 # Converting input to float
40 a = float(input('First Guess: '))
41 b = float(input('Second Guess: '))
42 epsilon = float(input('Tolerable Error: '))
43 falsePosition(a,b,epsilon)
44
```

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45
46
47
48
49 The output:
50 First Guess: 0
51 Second Guess: 5
52 Tolerable Error: 0.0001
53
54 *** FALSE POSITION METHOD IMPLEMENTATION ***
55 Iteration:1, d = 1.860499 and f(d) = 0.239461
56 Iteration:2, d = 2.224927 and f(d) = 0.020658
57 Iteration:3, d = 2.256013 and f(d) = 0.001194
58 Iteration:4, d = 2.257808 and f(d) = 0.000066
59
60 Required root is: 2.25780842
61 ````
62
63
64 ## Authors
65
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