**Nama : Siti Wahyuni M. Wael**

**Nim : H061181002**

**Metode Numerik**

import math

def f(x):

return math.exp(x) - 5\*x\*\*2

a = int(input("masukkan nilai batas bawah = "))

b = int(input("masukkan nilai batas atas = "))

e = float(input("masukkan nilai toleransi = "))

N = int(input("masukkan jumlah iterasi = "))

iterasi = 0

#a = 0

#b = 1

#e = 0.000001

#N = 100

#iterasi = 0

print('===============')

print('c f(c)')

print('===============')

while True:

iterasi += 1

c = (a + b)/2

if f(a)\*f(c)<0:

b=c

else:

a=c

print('{:7.5f} \t {:15.10f}'.format(c, f(c)))

if abs(f(c)) < e or iterasi >= N:

break

print('=========')

output

Windows PowerShell

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PS C:\Users\DELL> & C:/Users/DELL/AppData/Local/Programs/Python/Python38-32/python.exe "d:/1 SEMESTER 4/METODE NUMERIK/bisection.py"

masukkan nilai batas bawah = 3

masukkan nilai batas atas = 6

masukkan nilai toleransi = 0.000001

masukkan jumlah iterasi = 100

===============

c f(c)

===============

4.50000 -11.2328686995

=========

5.25000 52.7537684586

=========

4.87500 12.1460282108

=========

4.68750 -1.2818945092

=========

4.78125 4.9515657589

=========

4.73438 1.7207830877

=========

4.71094 0.1916594786

=========

4.69922 -0.5519745336

=========

4.70508 -0.1818828486

=========

4.70801 0.0044555943

=========

4.70654 -0.0888216332

=========

4.70728 -0.0422100427

=========

4.70764 -0.0188839827

=========

4.70782 -0.0072158842

=========

4.70792 -0.0013805674

=========

4.70796 0.0015374078

=========

4.70794 0.0000783938

=========

4.70793 -0.0006510934

=========

4.70793 -0.0002863515

=========

4.70794 -0.0001039793

=========

4.70794 -0.0000127929

=========

4.70794 0.0000328004

=========

4.70794 0.0000100038

=========

4.70794 -0.0000013945

=========

4.70794 0.0000043046

=========

4.70794 0.0000014550

=========

4.70794 0.0000000303

PS C:\Users\DELL>