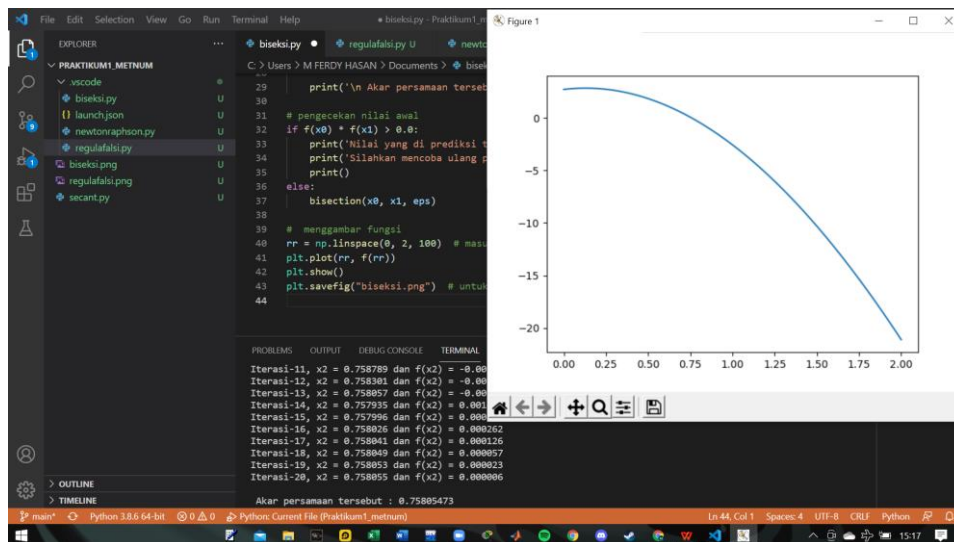


M. Ferdy Hasan

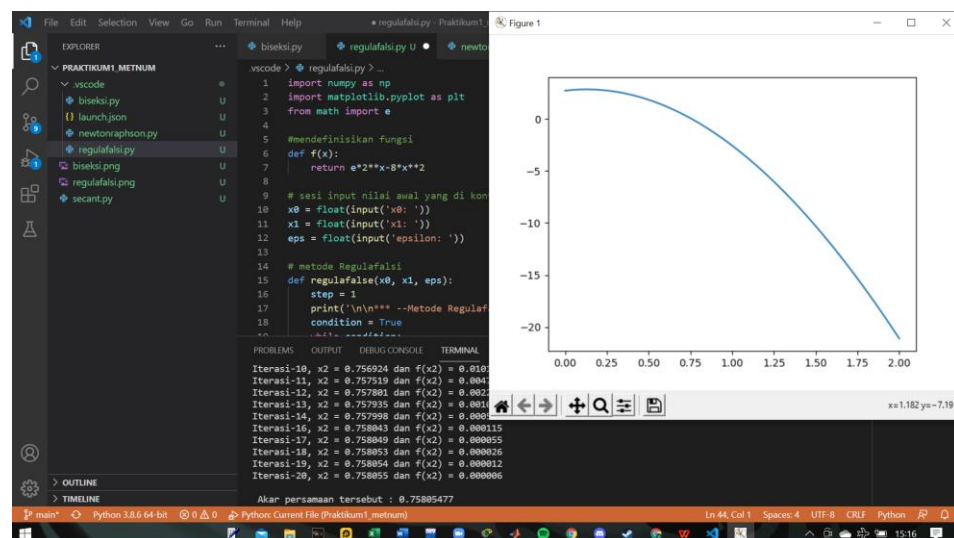
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## Laporan Praktikum 1

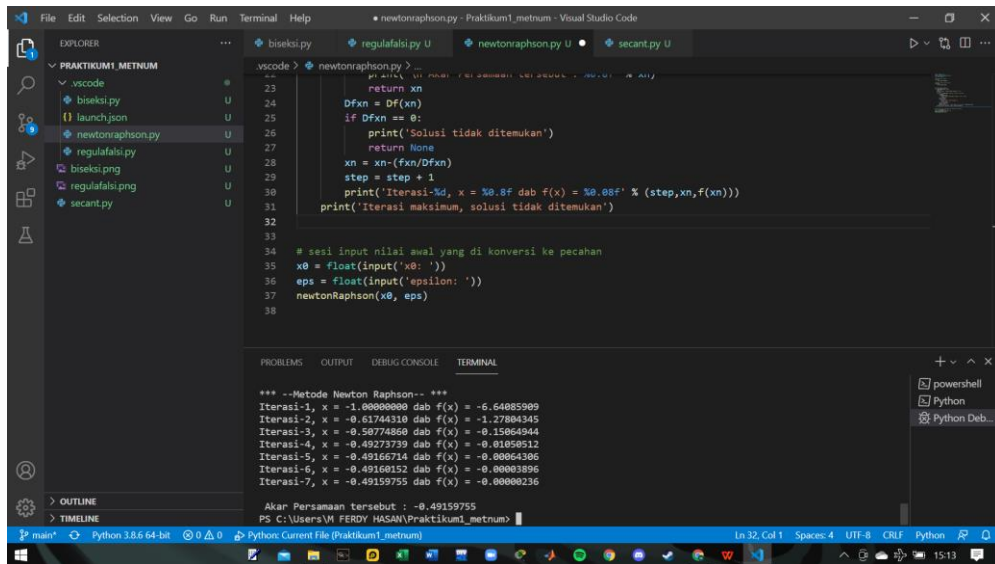
### Bisection.



### Regulafalsi.



# Newton Raphson.



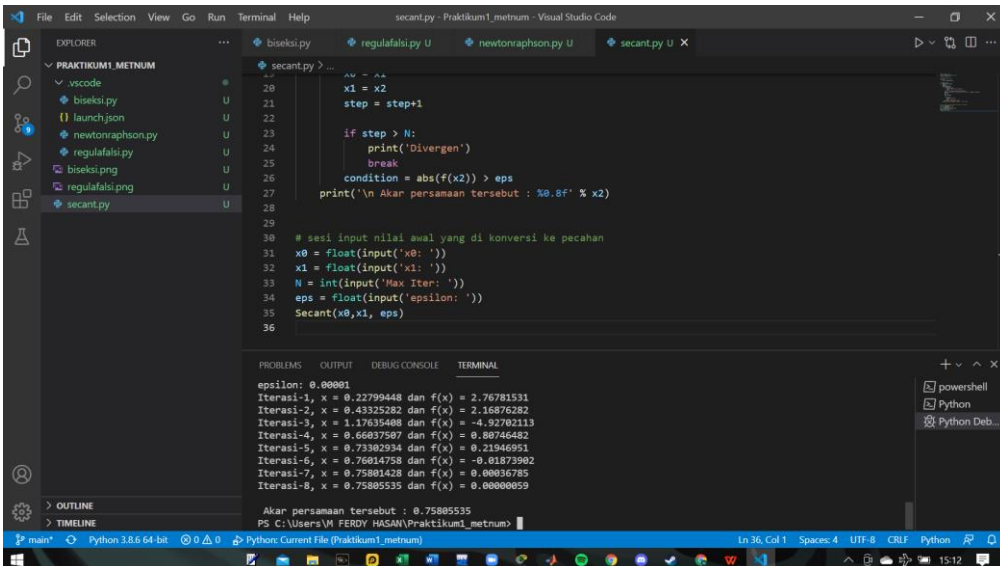
```
File Edit Selection View Go Run Terminal Help
newtonraphson.py - Praktikum1_metnum - Visual Studio Code

EXPLORER
PRAKTIKUM1_METNUM
  .vscode
  launch.json
  newtonraphson.py
  regulafalsi.py
  biseksi.png
  regulafalsi.png
  secant.py

newtonraphson.py
23     return xn
24     Dfxn = Df(xn)
25     if Dfxn == 0:
26         print('Solusi tidak ditemukan')
27         return None
28     xn = xn - (fxn/Dfxn)
29     step = step + 1
30     print('Iterasi-%d, x = %0.8f dan f(x) = %0.8f' % (step, xn, f(xn)))
31     print('Iterasi maksimum, solusi tidak ditemukan')
32
33
34 # sesi input nilai awal yang di konversi ke pecahan
35 x0 = float(input('x0: '))
36 eps = float(input('epsilon: '))
37 newtonRaphson(x0, eps)
38

TERMINAL
*** --Metode Newton Raphson-- ***
Iterasi-1, x = -1.00000000 dan f(x) = -6.64085909
Iterasi-2, x = -0.63744310 dan f(x) = -1.27884345
Iterasi-3, x = -0.50774860 dan f(x) = -0.15064944
Iterasi-4, x = -0.49273739 dan f(x) = -0.01050512
Iterasi-5, x = -0.49166714 dan f(x) = -0.00064306
Iterasi-6, x = -0.49160152 dan f(x) = -0.00003896
Iterasi-7, x = -0.49159755 dan f(x) = -0.00000236
Akar Persamaan tersebut : -0.49159755
PS C:\Users\VM_FERDY_HASAN\Praktikum1_metnum>
```

# Secant.



```
File Edit Selection View Go Run Terminal Help
secant.py - Praktikum1_metnum - Visual Studio Code

EXPLORER
PRAKTIKUM1_METNUM
  .vscode
  launch.json
  newtonraphson.py
  regulafalsi.py
  biseksi.png
  regulafalsi.png
  secant.py

secant.py
20     x1 = x2
21     step = step+1
22
23     if step > N:
24         print('Divergen')
25         break
26     condition = abs(f(x2)) > eps
27     print('\n Akar persamaan tersebut : %0.8f' % x2)
28
29
30 # sesi input nilai awal yang di konversi ke pecahan
31 x0 = float(input('x0: '))
32 x1 = float(input('x1: '))
33 N = int(input('Max Iter: '))
34 eps = float(input('epsilon: '))
35 Secant(x0, x1, eps)
36

TERMINAL
epsilon: 0.00001
Iterasi-1, x = 0.22799448 dan f(x) = 2.76781531
Iterasi-2, x = 0.43325282 dan f(x) = 2.16876282
Iterasi-3, x = 1.17635488 dan f(x) = -4.92702113
Iterasi-4, x = 0.66937587 dan f(x) = 0.82746482
Iterasi-5, x = 0.73302934 dan f(x) = 0.21946951
Iterasi-6, x = 0.76014758 dan f(x) = -0.01873902
Iterasi-7, x = 0.75801428 dan f(x) = 0.00036785
Iterasi-8, x = 0.75805535 dan f(x) = 0.00000059
Akar persamaan tersebut : 0.75805535
PS C:\Users\VM_FERDY_HASAN\Praktikum1_metnum>
```