Compte rendu Maths tp5 Sami Hadjeb

1)

def f(x):

return (3\*x\*x\*x) + (1\*x\*x) - 5

def txAccroi(f, a, h):

tx = (f(a+h)-f(a)) / h;

print (tx);

return tx;

txAccroi(f, 5, 0.01);

2)

import numpy;

def f2(x):

return (1+x) / (x-4)

def coefDir(f, a, b, p, h):

coef = txAccroi(f, numpy.arange(a, b, p), h);

print (coef);

return coef;

coefDir((f2), 0, 1, 0.01, 0.001);

3)

def u(n):

if (n == 0):

return 1

else:

return u(n-1)+ n + 1;

def afficheSuite(n, u0):

for i in range (0, 5):

print (u(i));

afficheSuite(0, 0);

4)

def T(n):

return (n\*n) - ((n-1)\*(n-1))

def afficheSn(n):

Sn = 0

for i in range (1, n):

Sn = Sn + T(i);

print(Sn);

afficheSn(10);

5)

def u2(n):

if (n == 0):

return 10;

else:

return u2(n-1)\*0.5;

def trouvePlusPetit(e):

i = 0;

while (u2(i)>e):

i = i + 1;

print (i);

trouvePlusPetit(2);

6)

import math;

def k(n):

return math.pow(-1, n) / ((2\*n + 1)\*(2\*n + 1));

def calculK(e):

i = 1;

while ((k(i)- k(i-1)) > e):

i = i+1;

print(i);

calculK(0.001);