import math

from scipy import optimize

x0 = -1.1

y0 = -1

def f1(y)

return -2 + math.cos(y + 0.5)

def f2(x)

return 12 math.sin(x)2

def iter(x, y, e)

xn = x

yn = y

xn1 = f2(x)

yn1 = f1(y)

n = 1

while((abs(xn1 - xn) = e) & (abs(yn1-yn) = e))

xn = xn1

yn = yn1

xn1 = f2(yn)

yn1 = f1(xn1)

n = n + 1

print(Simple iteration)

print(x1 = , xn, ny1 =, yn1,nThe amount of iteration = , n)

iter(x0, y0, 0.0001)

def f3(x)

return math.cos(x[1] + 0.5) - x[0] - 2, math.sin(x[0]) - 2 x[1] - 1

s = optimize.root(f3, [0, 0], method = 'hybr')

print(s.x)