```python
import numpy as np
from numpy import *
import math
import matplotlib.pyplot as plt
# Варіант 5 f(x) = e^sin(5x)
x = [0.1, 0.15, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.47, 0.5]
y = []
XX, YY, XX2, XY, a1, a0, i = 0, 0, 0, 0, 0, 0, 0

while i < len(x):
    y.append(np.e**np.sin(5*x[i]))
    i += 1
i = 0
while i < (len(x) - 1):
    XX += x[i]
    YY += y[i]
    XX2 += (x[i])**2
    XY += x[i] * y[i]
    i += 1
XX /= len(x)
YY /= len(x)
XX2 /= len(x)
XY /= len(x)

print(f'X avg = {XX}, Y avg = {YY}, XY = {XY}, XX  2 = {XX2}')
a1 = (XY - XX * YY) / (XX2 - XX ** 2)
a0 = YY - a1 * XX
print(f'A1 = {a1}, A0 = {a0}')
def F(x):
    global a1, a0
```
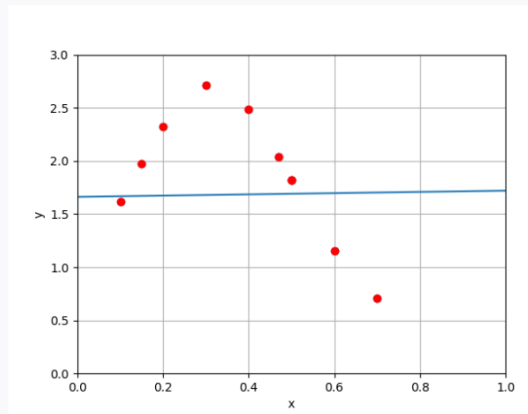
plot_show.png

$python3 Main.py

X avg = 0.34199999999999997, Y avg = 1.6818123419179034, XY = 0.5779399734585595,
A1 = 0.05826056489861146, A0 = 1.6618872287225783

plot_show.png