Лаб 5 Савчин Мирослав (8 вар)

Завд 1



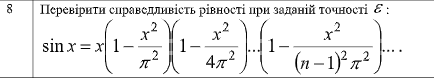
from math import sin  
n\_number = int(input("input n: "))  
x\_val = float(input("input x value(rad): "))  
total\_result = 0  
i\_c = 1  
while i\_c <= n\_number:  
 total\_result += sin(x\_val)\*\*i\_c  
 i\_c += 1  
  
print("result: ", total\_result)

Завд 2



number = int(input("number: "))  
number\_copy = number  
res = 0  
  
length\_counter = 0  
  
sum\_of\_digits = 0  
while(number >= 1):  
 ost = number % 10  
 number = int(number/10)  
 sum\_of\_digits += ost  
 length\_counter += 1  
 print(ost)  
  
number\_avg\_val = sum\_of\_digits/length\_counter  
amount\_of\_digit\_counter = 0  
  
i\_c = 0  
while(number\_copy >= 1):  
 ost = number\_copy % 10  
 number\_copy = int(number\_copy / 10)  
 if ost < number\_avg\_val:  
 amount\_of\_digit\_counter += 1  
 i\_c += 1  
  
  
  
print("Result: ", amount\_of\_digit\_counter)

Завд 3



from math import pi, sin, fabs  
  
x\_value = float(input("input x value: "))  
E\_val = float(input("input E value: "))  
  
static\_value = (x\_value\*\*2)/(pi\*\*2)  
  
res = x\_value  
  
n\_counter = 2  
  
while True:  
 temp\_val = 1 - static\_value/((n\_counter - 1)\*\*2)  
 n\_counter += 1  
 if fabs(temp\_val) < E\_val:  
 break  
 res \*= temp\_val  
  
print(res)

Завдання 4



n\_number = int(input("input n: "))  
  
i = 4  
  
x0 = 1  
x1 = 7  
x2 = 7  
x3 = 7  
res = 0  
  
while i <= n\_number:  
 res = (x3\*(1+x2)+x1)/x0  
 x0, x1, x2, x3 = x1, x2, x3, res  
 i += 1  
  
print(res)