**O’ZBEKISTON RESPUBLIKASI AXBOROT TEXNOLOGIYALARI VA KOMMUNIKATSIYALARINI RIVOJLANTIRISH  
VAZIRLIGI**

**MUHAMMAD AL-XORAZMIY NOMIDAGI TOSHKENT AXBOROT TEXNOLOGIYALARI UNIVERSITETI  
QARSHI FILIALI**



**KOMPYUTER INJINIRINGI FAKULTETI**

**DI-11-20 GURUH TALABASINING**

**DASTURIY TA'MINOT LOYIHALARINI BOSHQARISH**

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**Topshiriq:** *(Variant topshiriq dasturlarini Python dasturlash tilida tuzish tavsiya etiladi)*

**1-variant**

def ekub(a, b):  
 while b:  
 a, b = b, a % b  
 return a  
  
def diagonal\_ekub(matrix):  
 n = len(matrix)  
 if n != len(matrix[0]):  
 raise ValueError("Matritsa kvadrat emas")  
  
 main\_diagonal\_elements = [matrix[i][i] for i in range(n)]  
 result = main\_diagonal\_elements[0]  
  
 for element in main\_diagonal\_elements[1:]:  
 result = ekub(result, element)  
  
 return result  
  
# Matritsani o'qib olamiz  
n = int(input("Matritsa o'lchamini kiriting (n x n): "))  
matrix = []  
for i in range(n):  
 row = list(map(int, input(f"{i+1}-chi qatorni kiriting: ").split()))  
 matrix.append(row)  
  
# EKUB ni topamiz va natijani chiqaramiz  
result = diagonal\_ekub(matrix)  
print(f"Asosiy dioganal yotuvchi elementlarning EKUB-i: {result}")

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