TC2017 Análisis y Diseño de Algoritmos
Proy01B – Múltiplicación de Matrices Cuadradas
Ing. Luis Humberto González G
Forma de Trabajo: *Individual*.

Given two squared matrices A and B, execute the multiply A x B with the algorithm of:

- Traditional
- Strassen

Display the result of both, and the number of scalar multiplications.

Input

First comes **n** the dimension of the squared matrices, and then comes n rows with n integers of the matrix A, then comes n rows with n integer of the matrix B.

Output

The result of the multiplication in the Traditional algorithm and the amount of scalar multiplications, the result of the multiplication of the Strassen algorithm, and the amount of scalar multiplications. Check the output format in the Sample Output.

Sample Input

```
4
1  2  3  4
5  6  7  8
9  10  11  12
13  14  15  16
1  0  0  0
0  1  0  0
0  0  1  0
0  0  0  1
```

Sample Output

```
Traditional:
1 2 3 4
5 6 7 8
9 10 11 12
13 14 15 16
Scalar Multiplications: 64

Strasse:
1 2 3 4
5 6 7 8
9 10 11 12
13 14 15 16
Scalar Multiplications: 56
```