[**LAB4_4**] Given two squared matrix: A B, write C code to compute matrix C = A*B. For example, the multiplication of two 3*3 matrices can be computed as follows:

$$\begin{pmatrix} 1 & 2 & -1 \\ 3 & 2 & 0 \\ -4 & 0 & 2 \end{pmatrix}\begin{pmatrix} 3 & 4 & 2 \\ 0 & 1 & 0 \\ -2 & 0 & 1 \end{pmatrix}$$

$$= \begin{pmatrix} 1(3)+2(0)+(-1)(-2) & 1(4)+2(1)+(-1)0 & 1(2)+2(0)+(-1)(1) \\ 3(3)+2(0)+(0)(-2) & 3(4)+2(1)+(0)0 & 3(2)+2(0)+(0)(1) \\ -4(3)+0(0)+(2)(-2) & -4(4)+0(1)+(2)0 & -4(2)+0(0)+(2)(1) \end{pmatrix}$$

$$= \begin{pmatrix} 5 & 6 & 1 \\ 9 & 14 & 6 \\ -16 & -16 & -6 \end{pmatrix}$$

Input

First line n indicates the dimension size of squared matrix, where 1 <= n <= 10

N+1 lines each line consists of n column vector in matrix A, separating a white space, where 1<= i, j <= n and -100 < A[i][j] < 100

N+1 lines each line consists of n column vector in matrix B, separating a white space, where 1<= i, j <= n and -100 < B[i][j] < 100

Output

N lines represent the matrix resultant C where each line represents n column vector, separating a white space.

Input sample	Output sample
3 1 2 -1 3 2 0 -4 0 2 3 4 2 0 1 0 -2 0 1	5 6 1 9 14 6 -16 -16 -6