Addition of two square matrices

Write a program to add two matrices.

Input

The first line of input contains an integer T denoting the number of test cases. Then T test cases follow. Each test contains an integer N denoting the size of the square matrix. Then the two square matrix of size N*N is taken as input in next two lines.

Output:

For each test case in a new line print separated values of the matrix denoting addition of the two matrices.

Constraints:

```
1<=T<=100
1<=N<=20
1<=a[i][j]<=1000
```

Example:

Input:

```
2 4
1 1 1 1 2 2 2 2 3 3 3 3 4 4 4 4
1 1 1 1 2 2 2 2 3 3 3 3 4 4 4 4
2
1 2 3 4
3 4 2 1
```

Output:

```
2 2 2 2 4 4 4 4 6 6 6 6 8 8 8 8 4 6 5 5
```