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Maximise Zeros AZ101

? Ask Doubt

Time-Limit: 1 sec Score: 100.00/100 Difficulty :

Memory: 256 MB Accepted Submissions: 100

Description

You are given two arrays, A and B of N integers. You have to create a new array, $C_i = A_i * D + B_i$

Find the maximum number of zeros you can get in the new array C_i taking an optimal value of D. (D is a real number)

Input Format

The first line of the input contains one integer T - the number of test cases. Then T test cases follow.

The first line of each test case contains one integer N - the length of the array.

The second line of each test case contains N space-separated integers - array A_i

The third line of each test case contains N space-separated integers - array B_i

Output Format

For each test case, print the maximum number of zeros you can get in the new array C_i taking an optimal value of D.

Constraints

$1 \le T \le 10^6$

$1 \le N \le 10^6$

$-10^9 \le A_i, B_i \le 10^9$

It is guaranteed that the sum of N over all test cases does not exceed 10^6.

Sample Input 1

Copy

```
3
5
1 3 2 5 4
2 6 1 5 8
3
0 2 0
1 1 1
3
0 0 4
4 0 1
```

C++14[GCC]

Submit

```
1
```