D. The BOSS Can Count Pairs

time limit per test: 4 seconds
memory limit per test: 512 megabytes
input: standard input
output: standard output

You are given two arrays a and b, both of length n.

Your task is to count the number of pairs of integers (i, j) such that $1 \le i < j \le n$ and $a_i \cdot a_j = b_i + b_j$.

Input

Each test contains multiple test cases. The first line of input contains a single integer t ($1 \le t \le 10^4$) — the number of test cases. The description of test cases follows.

The first line of each test case contains a single integer n ($2 \le n \le 2 \cdot 10^5$) — the length of the arrays.

The second line of each test case contains n integers $a_1, a_2, \ldots, a_n$ ($1 \le a_i \le n$) — the elements of array a.

The third line of each test case contains n integers $b_1, b_2, \ldots, b_n$ ($1 \le b_i \le n$) — the elements of array b.

It is guaranteed that the sum of n across all test cases does not exceed $2 \cdot 10^5$.

Output

For each test case, output the number of good pairs.

Example

input

```
3
3
2 3 2
3 3 1
8
4 2 8 2 1 2 7 5
3 5 8 8 1 1 6 5
8
4 4 8 8 8 8 8 8
8 8 8 8 8 8 8 8
```

output

```
2
7
1
```

Note

In the first sample, there are 2 good pairs:

- $(1, 2)$,
- $(1, 3)$.

In the second sample, there are 7 good pairs:

- $(1, 2)$,
- $(1, 5)$,
- $(2, 8)$,

- $(3, 4)$,
- $(4, 7)$,
- $(5, 6)$,
- $(5, 7)$.