Problem S2: Assigning Partners

Problem Description
The CEMC is organizing a workshop with an activity involving pairs of students. They decided to assign partners ahead of time. You need to determine if they did this *consistently*. That is, whenever A is a partner of B, then B is also a partner of A, and no one is a partner of themselves.

Input Specification
The input consists of three lines. The first line consists of an integer N $(1 < N \leq 30)$, which is the number of students in the class. The second line contains the first names of the N students separated by single spaces. (Names contain only uppercase or lowercase letters, and no two students have the same first name). The third line contains the same N names in some order, separated by single spaces.

The positions of the names in the last two lines indicate the assignment of partners: the ith name on the second line is the assigned partner of the ith name on the third line.

Output Specification
The output will be `good` if the two lists of names are arranged consistently, and `bad` if the arrangement of partners is not consistent.

Sample Input 1
```
4
Ada Alan Grace John
John Grace Alan Ada
```

Output for Sample Input 1
```
good
```

Explanation for Output for Sample Input 1
Ada and John are partners, and Alan and Grace are partners. This arrangement is consistent.

Sample Input 2
```
7
Rich Graeme Michelle Sandy Vlado Ron Jacob
Ron Vlado Sandy Michelle Rich Graeme Jacob
```

Output for Sample Input 2
```
bad
```

Explanation for Output for Sample Input 2
Graeme is partnered with Vlado, but Vlado is partnered with Rich. This is not consistent. It is also inconsistent because Jacob is partnered with himself.