

Closest ZIP Codes

Input File: zipcode.txt

You have just graduated from college and don't know where you want to live. One of your friends from high school suggests that you buy a house nearby because the prices are very cheap. The problem is, however, that you have a strict policy that you can only move to places where the ZIP code contains the same digits as your current address. Given your current ZIP code, rearrange the numbers so that the new number is as close to your friend's ZIP code as possible (determined by the difference between the two numbers).

Input:

The first line contains an integer N . The following lines each contain two five-digit numbers, the first of which is your current ZIP code and the second is your friend's.

Output:

Output your new rearranged ZIP code that's closest to your friend's ZIP code, followed by the difference of the two numbers.

Example Input:

```
3
45467 75885
98040 56470
29399 30106
```

Example Output:

```
75644 241
49800 6670
29993 113
```