Wired

You have a sussy electrical box which has four colours on the left side and four colours on the right side (the colours are represented by numbers 1 to 4).

Determine a wiring which matches up the colours on the left side to the colours on the right side if they're the same colour.

Input

You are given an integer T representing the number of test cases.

For each test case, you are give two lines:

The first line will contain four space-separated integers representing the left-side colours.

Similarly, the second line will contain four space-separated integers representing the right-side colours.

Output

Output four space-separated integers for each test case, representing the position that a wire on the left side should be wired to on the right side.

i.e. the line a b c d means the first colour on the left side gets wired to the a-th colour on the right side and so on.

Input 1
```
2
1 3 4 2
2 4 3 1
1 2 3 4
1 2 3 4
```
Output 1
```
4 3 2 1
1 2 3 4
```
Explanation
For the first test case, we must match the first colour on the left side to the fourth colour on the right side (matching the colour 1 to the colour 1). Similarly, we also match the second left to the