



Problem C. Oscar's Round Must Have a Constructive Problem

Input file: *standard input*
Output file: *standard output*
Time limit: 1 second
Memory limit: 256 mebibytes

Grammy has a sequence A of length n .

Please find a permutation P such that $P_i \neq A_i$ for all i .

Input

There are multiple test cases.

The first line contains a single integer T ($1 \leq T \leq 100\,000$), denoting the number of test cases.

For each test case:

The first line contains a single integer n ($1 \leq n \leq 100\,000$).

The second line contains n integers $A_1, A_2, \dots, A_n$ ($1 \leq A_i \leq n$).

It is guaranteed that the sum of n does not exceed 500 000.

Output

For each test case:

If the permutation does not exist, output “NO” on a single line.

Otherwise, output “YES” on the first line, then output n integers on the second line, denoting the permutation $P_1, P_2, \dots, P_n$.

Example

standard input	standard output
3	NO
3	YES
3 3 3	1 3 2
3	YES
3 2 1	4 5 1 2 3 6
6	
1 1 4 5 1 4	