ACM-ICPC Indonesia National Contest 2016

Problem G

Beautiful Triple

Time Limit: 2 seconds

In a sequence of N integers $A_{1..N}$, a triple ⟨a, b, c⟩ is considered beautiful if $A_a = A_c$ and $1 \le a < b < c \le N$.

For example, a sequence $A_{1..6}$ = {3, 1, 3, 7, 3, 7} has 6 beautiful triples:

- ⟨1, 2, 3⟩ – $A_1 = 3$, $A_2 = 1$, $A_3 = 3$.
- ⟨1, 2, 5⟩ – $A_1 = 3$, $A_2 = 1$, $A_5 = 3$.
- ⟨1, 3, 5⟩ – $A_1 = 3$, $A_3 = 3$, $A_5 = 3$.
- ⟨1, 4, 5⟩ – $A_1 = 3$, $A_4 = 7$, $A_5 = 3$.
- ⟨3, 4, 5⟩ – $A_1 = 3$, $A_4 = 7$, $A_5 = 3$.
- ⟨4, 5, 6⟩ – $A_4 = 7$, $A_5 = 3$, $A_6 = 7$.

Given a sequence of integers, determine how many beautiful triples are there in the sequence. Modulo the output with 1,000,000,007.

Input

The first line of input contains an integer T (T ≤ 50) denoting the number of cases. Each case begins with an integer N (1 ≤ N ≤ 100,000) denoting the size of the integer sequence. The next line contains N integers A_i (1 ≤ A_i ≤ 100,000) representing the elements in A, for i = 1..N respectively.

Output

For each case, output in a line "`Case #X: Y`" where `X` is the case number, starts from 1, and `Y` is the output for that particular case.

Sample Input

```
4
6
3 1 3 7 3 7
3
5 5 5
7
35 35 35 35 35 35 35
4
102 38 173 25
```

Output for Sample Input

```
Case #1: 6
Case #2: 1
Case #3: 35
Case #4: 0
```