I - Interesting Sequences

For a sequence of integer numbers $<x_1,x_2,\ldots,x_n>$, a contiguous subsequence $<x_i,x_{i+1},\ldots,x_j>$ where $i<j\leq n$, is called "interesting" if its first and last elements are equal (i.e., $x_i=x_j$). Two interesting subsequences $S_1=<x_i,x_{i+1},\ldots,x_j>$ and $S_2=<x_a,x_{a+1},\ldots,x_b>$ are called conflict-free if either $a\geq j$ or $i\geq b$.

For a given sequence of known size, find the maximum number of interesting subsequences which are pairwise conflict-free.

Input

The first line of input contains an integer $T\leq 100$ denoting the number of test-cases. Each test-case begins with an integer $1\leq N\leq 100{,}000$, on a separate line, denoting the size of the sequence. The following line contains N positive integers each between 1 and 100,000 (inclusive).

Output

For each test-case, output on a single line the maximum number of pairwise conflict-free interesting subsequences.

Sample Input	Sample Output
3 6 1 2 1 3 1 2 4 2 4 2 4 9 10 2 2 10 3 4 5 4 3	2 1 2