



May Easy' 19

May 13, 2019, 09:30 PM IST - May 14, 2019, 12:30 AM IST

INSTRUCTIONS PROBLEMS SUBMISSIONS LEADERBOARD ANALYTICS JUDGE ← Problems / Close Subsequences **Close Subsequences**

Max. Marks: 100

Given an array A, a subsequence of A is said to be good subsequence, if it has at least one pair of consecutive elements such that their absolute difference is less than equal to 1.

Formally, if the subsequence B has m elements, then it is a good subsequence if there exists at least one index i ($1 \le i \le m$) such that $abs(B_i - B_{i-1}) \le 1$.

You have to find the total number of good subsequences of array A modulo $10^9 + 7$.

Obviously, a good subsequence has to have at least 2 elements in it.

For example if sequence has 3 elements [3, 4, 5], subsequence [3, 4], [4, 5] and [3, 4, 5] are good subsequnces. So our answer will be 3 in this case.

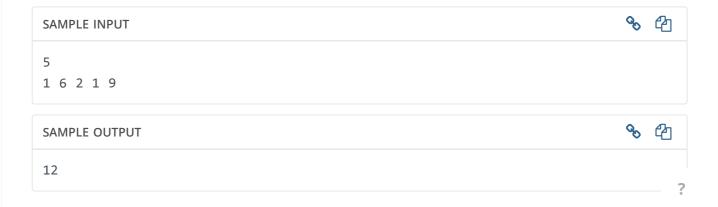
Input Format

The first line contains a single integer N ($2 \le n \le 10^5$), denoting the number of elements in A

The second line contains N integers A_1, A_2, \ldots, A_n ($1 \le A_i \le 10^5$).

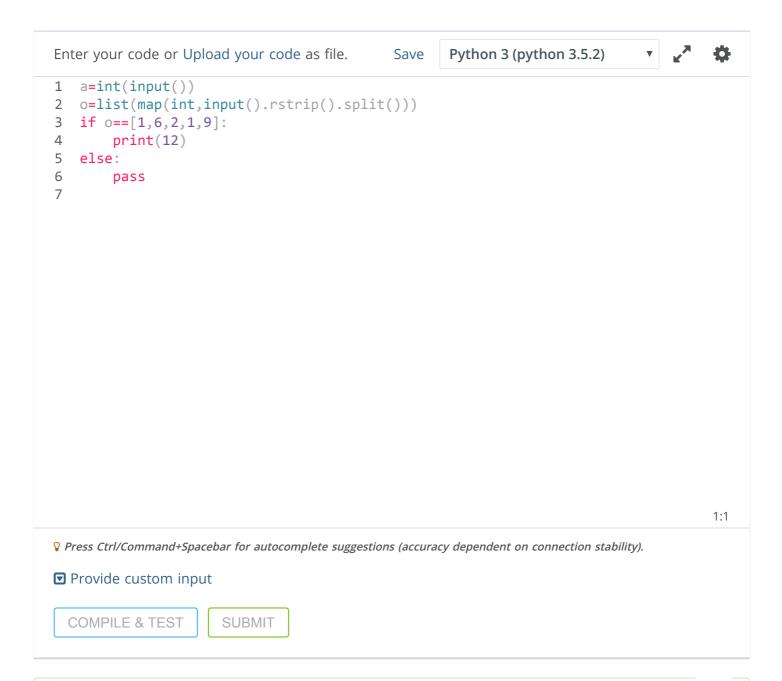
Output Format

Output the total number of good subsequences of the array A modulo $10^9 \pm 7$



Explanation [1, 2], [1, 2, 1], [1, 2, 1, 9], etc. are some of the good subsequences. Total 12 are there in the given sample. Time Limit: 1.0 sec(s) for each input file. Memory Limit: 256 MB Source Limit: 1024 KB Marking Scheme: Marks are awarded if any testcase passes. Allowed Languages: Bash, C, C++, C++14, Clojure, C#, D, Erlang, F#, Go, Groovy, Haskell, Java, Java 8, JavaScript(Rhino), JavaScript(Node.js), Julia, Kotlin, Lisp, Lisp (SBCL), Lua, Objective-C, OCaml, Octave, Pascal, Perl, PHP, Python, Python 3, Racket, Ruby, Rust, Scala, Swift, Swift-4.1, TypeScript, Visual Basic

CODE EDITOR



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