

M. Consecutive Integers

Time Limit: 3 seconds

Problem description



Given a sequence of integer numbers N

Find the length of the longest sub-sequence such that elements in the subsequence are consecutive integers, the consecutive numbers can be in any order.

Input:

The format of input:

- Line 1: N - number of elements of sequence ($1 \leq N \leq 10000$).
- Line 2: value of each element of sequence

Output:

Value of elements in the range long integer.

Example 1

Input	Output
5 2 1 6 4 7	2

Explanation:

The subsequence 2, 1 or 6, 7 is the longest subsequence of consecutive elements

Example 2

Input	Output
7 1 9 3 10 4 20 2	4

Explanation:

The subsequence 1, 3, 4, 2 is the longest subsequence of consecutive elements

Example 3

Input	Output
11 36 41 56 35 44 33 34 92 43 32 42	5

Explanation:

The subsequence 36, 35, 33, 34, 32 is the longest subsequence of consecutive elements.