Find the smallest positive integer that does not occur in a given sequence.

Task description

This is a demo task.

Write a function:

int solution(vector<int> &A);

that, given an array A of N integers, returns the smallest positive integer (greater than 0) that does not occur in A.

For example, given A = [1, 3, 6, 4, 1, 2], the function should return 5.

Given A = [1, 2, 3], the function should return 4.

Given A = [−1, −3], the function should return 1.

Write an efficient algorithm for the following assumptions:

* N is an integer within the range [1..100,000];
* each element of array A is an integer within the range [−1,000,000..1,000,000].

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