Write a function:

def solution(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].

def solution(A):

arr1 = [0] \* len(A)

for i in A:

if 0 < i <= len(A):

arr1[ i - 1 ] = 1

for index, value in enumerate(arr1):

if value == 0:

return index + 1

return len(A) + 1

or

def solution(A):

A.sort()

min1 = 1

for value in A:

if value > min1:

return min1

if value > 0:

min1 = value +1

return min1