Write a function

class Solution { public int solution(int[] A); }

that, given a zero-indexed array A consisting of N integers, returns the number of distinct values in array A.

Assume that:

* N is an integer within the range [0..100,000];
* each element of array A is an integer within the range [−1,000,000..1,000,000].

For example, given array A consisting of six elements such that:

A[0] = 2 A[1] = 1 A[2] = 1

A[3] = 2 A[4] = 3 A[5] = 1

the function should return 3, because there are 3 distinct values appearing in array A, namely 1, 2 and 3.

Complexity:

* expected worst-case time complexity is O(N\*log(N));
* expected worst-case space complexity is O(N), beyond input storage (not counting the storage required for input arguments).

Elements of input arrays can be modified.