Largest Number X Occurring X Times

Write a function

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int solution(vector <int> &A)
```

That, given an array A consisting of N integers, returns the biggest value X, which occurs in A exactly X times. If there is no such value, the function should return 0.

Examples:

1. Given A = [3, 8, 2, 3, 3, 2], the function should return 3. The value 2 occurs exactly two times and the value 3 occurs exactly three times, so they both meet the task conditions. The value 8 occurs just once, thus it does not meet the task conditions. The maximum of 2 and 3 is 3.

2. Given A = [7, 1, 2, 8, 2], the function should return 2. The value 1 occurs exactly one time; the value 2 occurs exactly two times.

3. Given A = [3, 1, 4, 1, 5], the function should return 0. There is no value which meets the task conditions.

4. Given A = [5, 5, 5, 5, 5], the function should return 5.

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, 1,000,000,000).