Problem F. Beautiful Sequence

Input file:	*standard input*
Output file:	*standard output*
Time limit:	3 seconds
Memory limit:	1024 mebibytes

There is a sequence consisting of N integers. We want to rearrange the integers to make the most beautiful sequence possible. A sequence is more beautiful when there are more members which are not less than their neighbors. The *beauty* of a sequence is the number of such members.

Write a program that will rearrange a given sequence to make it the most beautiful possible.

For example, if $N = 6$ and the sequence is $1, 1, 2, 3, 3, 4$, the beauty of the given sequence is 3. However, if we rearrange the sequence to become $2, 1, 3, 3, 1, 4$, then the beauty of the rearranged sequence is 4, which is the maximum possible.

Input

The first line contains an integer T, the number of test cases ($1 \le T \le 2222$). The test cases follow.

The first line of each test case contains an integer N, the number of elements ($1 \le N \le 300\,000$).

The next line contains the elements of the sequence. Each element is an integer between 1 and 10^9, inclusive.

The sum of N over all test cases does not exceed $5\,000\,000$.

Output

For each test case, print one line containing an integer: the highest beauty possible after rearrangement.

Example

standard input	*standard output*
2 6 1 1 2 3 3 4 5 1 2 2 3 3	4 4