

Problem L. Equalize the Array

Input file: `standard input`
Output file: `standard output`
Time limit: 1 second
Memory limit: 512 megabytes

You are given an array a consisting of n integers.

In one move, you can choose a positive integer x , such that x is one of the modes of the array, then add 1 to each x in a .

An integer x is a mode of an array a if and only if x appears most frequently in a . Note that an array may have multiple modes (e.g. 2, 3 are both the modes of $[2, 2, 1, 3, 3]$).

Find out if it is possible to get an array that all elements in it are equal through several (possibly zero) such moves.

Input

The first line contains a single integer T ($1 \leq T \leq 100$), denoting the number of test cases.

For each test case, the first line contains an integer n ($1 \leq n \leq 10^6$).

The next line contains n integers. The i -th number denotes a_i ($1 \leq a_i \leq n$).

It is guaranteed that the sum of n over all test cases does not exceed $2 \cdot 10^6$.

Output

For each test case, output a string. If it is possible, output YES; otherwise, output NO.

Example

standard input	standard output
3	YES
5	NO
1 2 3 4 5	YES
5	
4 4 1 4 4	
4	
2 2 2 2	