

D. Turtle Tenacity: Continual Mods

time limit per test: 2 seconds

memory limit per test: 256 megabytes

input: standard input

output: standard output

Given an array a_1, a_2, \dots, a_n , determine whether it is possible to **rearrange its elements** into b_1, b_2, \dots, b_n , such that $b_1 \bmod b_2 \bmod \dots \bmod b_n \neq 0$.

Here $x \bmod y$ denotes the remainder from dividing x by y . Also, the modulo operations are calculated from left to right. That is, $x \bmod y \bmod z = (x \bmod y) \bmod z$. For example, $2024 \bmod 1000 \bmod 8 = (2024 \bmod 1000) \bmod 8 = 24 \bmod 8 = 0$.

Input

The first line of the input contains a single integer t ($1 \leq t \leq 10^4$) — the number of test cases.

The first line of each test case contains a single integer n ($2 \leq n \leq 10^5$).

The second line of each test case contains n integers a_1, a_2, \dots, a_n ($1 \leq a_i \leq 10^9$).

The sum of n over all test cases does not exceed $2 \cdot 10^5$.

Output

For each test case, output "YES" if it is possible, "NO" otherwise.

You can output the answer in any case (upper or lower). For example, the strings "yEs", "yes", "Yes", and "YES" will be recognized as positive responses.

Example

input	Copy
8	
6	
1 2 3 4 5 6	
5	
3 3 3 3 3	
3	
2 2 3	
5	
1 1 2 3 7	
3	
1 2 2	
3	
1 1 2	
6	
5 2 10 10 10 2	
4	
3 6 9 3	
output	Copy
YES	
NO	
YES	
NO	
YES	
NO	
YES	
NO	

Note

In the first test case, rearranging the array into $b = [1, 2, 3, 4, 5, 6]$ (doing nothing) would result in $1 \bmod 2 \bmod 3 \bmod 4 \bmod 5 \bmod 6 = 1$. Hence it is possible to achieve the goal.

Codeforces Round 929 (Div. 3)

Finished

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In the second test case, the array b must be equal to $[3, 3, 3, 3]$, which would result in $3 \bmod 3 \bmod 3 \bmod 3 \bmod 3 = 0$. Hence it is impossible to achieve the goal.

In the third test case, rearranging the array into $b = [3, 2, 2]$ would result in $3 \bmod 2 \bmod 2 = 1$. Hence it is possible to achieve the goal.

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