Sherlock and GCD

Problem Statement

Sherlock is stuck while solving a problem: Given an array $A = \{a_1, a_2, \cdots, a_N\}$, he wants to know if there exists a subset, $B = \{a_{i_1}, a_{i_2}, \ldots, a_{i_k}\}$ $where$ $1 \leq i_1 < i_2 < \ldots < i_k \leq N$, of this array which follows these statements:

- B is non-empty subset.

- There exists no integer $x(x > 1)$ which divides all elements of B. Note that x may or may not be an element of A.

Input Format
First line of input contains an integer T representing the number of testcases. Then T test cases follows. Each testcase consists of two lines. First line contains an integer, N, representing the size of array A. In second line there are N space-separated integers, $a_1, a_2, \ldots, a_n$, representing the elements of array A.

Output
Print YES if such a subset exists, else print NO .

Constraints
$1 \leq T \leq 10$
$1 \leq N \leq 100$
$1 \leq a_i \leq 10^5 \ \forall 1 \leq i \leq N$

Sample input

```
2
3
1 2 3
2
2 4
```

Sample output

```
YES
NO
```

Explanation
In first testcase, $S = \{1\}, S = \{1,2\}, S = \{1,3\}, S = \{2,3\}$ and $S = \{1,2,3\}$ are all the possible subsets which satisfy the given condition.
For second testcase, all possible subsets are $\{2\}, \{4\}, \{2,4\}$. For all of these subsets, $x = 2$ divides each of the element. Therefore no non-empty subset exists which satisfies the given condition.