Sherlock and GCD

Sherlock is stuck. He has an array $A_1, A_2, \cdots, A_N$. He wants to know if there exists a subset, $B = \{A_{i1}, A_{i2}, \ldots, A_{ik}\}\ where\ 1 \leq i1 < i2 < \ldots < ik \leq N$, of this array which follows the property

- 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 contains T, the number of testcases. Each testcase consists of N in one line. The next line contains N integers denoting the array A.

Output

Print `YES` or `NO`, if there exists any such subset or not, respectively.

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, $S = \{1\}, S = \{1,2\}, S = \{1,3\}, S = \{2,3\}\ \text{and}\ S = \{1,2,3\}$ are all the possible subsets which satisfy the given condition.
In second testcase, no non-empty subset exists which satisfies the given condition.