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Badge Progress (Details)

Rank: 12706   Score: 302.00

Sherlock and GCD

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Problem Statement

Sherlock is stuck. He has an array $A_1, A_2, \cdots, A_N$. He wants to know if there exists a subset, $B = \{A_{i_1}, A_{i_2}, \ldots, A_{i_k}\}$ *where* $1 \leq i_1 < i_2 < \ldots < i_k \leq N$, of this array which follows 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, $S = \{1\}, S = \{1, 2\}, S = \{1, 3\}, S = \{2, 3\}$ 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.