# **Sherlock and GCD**



## **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,  $B = \{A_{i_1}, A_{i_2}, \dots, A_{i_k}\}$  where  $1 \leq i_1 < i_2 < \dots < i_k \leq N$ , of this array which follows the property

- ullet B is non-empty subset.
- ullet 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.

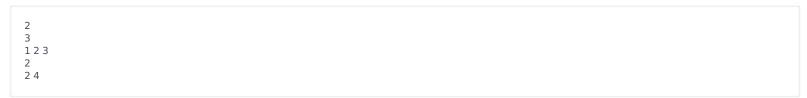
#### **Constraints**

```
1 \le T \le 10

1 \le N \le 100

1 \le A_i \le 10^5 \ \forall 1 \le i \le N
```

## Sample input



## 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.