

## Problem Statement

Sherlock is stuck while solving a problem: Given an array  $A = \{a_1, a_2, \dots, a_N\}$ , he wants to know if there exists a subset  $B$  of this array which follows these statements:

- $B$  is a non-empty subset.
- There exists no integer  $x (x > 1)$  which divides all elements of  $B$ .
- There are no elements of  $B$  which are equal to another.

## Input Format

The first line of input contains an integer,  $T$ , representing the number of test cases. Then  $T$  test cases follow.

Each test case consists of two lines. The first line contains an integer,  $N$ , representing the size of array  $A$ . In the second line there are  $N$  space-separated integers,  $a_1, a_2, \dots, a_n$ , representing the elements of array  $A$ .

## Constraints

$$1 \leq T \leq 10$$

$$1 \leq N \leq 100$$

$$1 \leq a_i \leq 10^5 \quad \forall 1 \leq i \leq N$$

## Output Format

Print **YES** if such a subset exists; otherwise, print **NO**.

## Sample Input

```
3
3
1 2 3
2
2 4
3
5 5 5
```

## Sample Output

```
YES
NO
NO
```

## Explanation

In the first test case,  $\{1\}, \{2\}, \{3\}, \{1,2\}, \{1,3\}, \{2,3\}$  and  $\{1,2,3\}$  are all the possible non-empty subsets, of which the last four satisfy the given condition.

For the second test case, all possible subsets are  $\{2\}, \{4\}, \{2,4\}$ . For all of these subsets,  $x = 2$  divides each element. Therefore, no non-empty subset exists which satisfies the given condition.

For the third test case, the following subsets exist:  $S_1 = \{5\}, S_2 = \{5,5\}$ , and  $S_3 = \{5,5,5\}$ . Because the single element in the first subset is divisible by 5 and the other two subsets have elements that are equal to another, there is no subset that satisfies every condition.

