

# Problem B : Ines and summations

## Statement:

Ines is very good at mathematics so her friends challenged her to a problem. They gave her an array of numbers  $a$  and a number  $k$  and allowed her to do the following operation on the array any number of times as long as there are 2 or more elements in the array :

- Take two array elements  $a_i$  and  $a_j$  and remove them from the array then insert the value  $(a_i + a_j)$  into any position of the array.

Determine if Ines can reduce the array using the operation provided to a single value that is divisible by  $k$ .

## Input :

The first line contains a single integer  $T$  ( $1 \leq T \leq 100$ ) — the number of test cases. Then the test cases follow. Each test case consists of one line.

The first line contains two integers  $n, k$  ( $1 \leq n, k \leq 10^5$ ) — where  $n$  is the length of the array and  $k$  is the number described above.

The second line contains  $n$  integers  $a_i$  ( $1 \leq a_i \leq 10^3$ ) describing the array  $a$ .

## Output :

For each test output "YES" (all uppercase) if it is possible to obtain a value divisible by  $k$  and "NO" otherwise.

## Example:

Input :

```
3
3 3
4 4 1
4 5
12 5 6 8
1 3
3
```

Output :

```
YES
NO
YES
```

In the first test case one possible sequence of operations is :

4 4 1 -> 8 1 -> 9