A. Teamwork

time limit per test: 1 s.

memory limit per test: 256 MB

Professor Oak is giving a group of n math students a welcome party in a math club. He wants to teach new students how to work in a group.

In order to teach students about teamwork, he gives these students n integers, i.e. $a_1, a_2, \ldots, a_n$.

He asks the students a question, whether these students can pick one integer of their own x_i and as a group, for every number a_i in $a_1, a_2, \ldots, a_n$ you can always find a pair of students j and k (not necessarily distinct), for which the difference between the numbers they pick $x_j - x_k$ equals exactly to a_i.

In other words. Can these students pick n integers $x_1, x_2, \ldots, x_n$ such that the following property holds?

- For each $1 \leq i \leq n$, there exist two (not necessarily distinct) students j and k ($1 \leq j, k \leq n$) such that $a_i = x_j - x_k$.

Input
The first line contains a single integer t ($1 \leq t \leq 20$) — the number of test cases. Then t test cases follow.

The first line of each test case contains one integer n ($1 \leq n \leq 10$).

The second line of each test case contains the n integers $a_1, \ldots, a_n$ ($-10^5 \leq a_i \leq 10^5$).

Output
For each test case, output a line containing YES if a sequence $x_1, \ldots, x_n$ satisfying the required property exists, and NO otherwise.

Example

```
input
4
3
52 -23 23
9
30 -16 27 57 -43 13 1 -42 -28
3
9 99 999
3
13 -2 -4
```

```
output
YES
YES
NO
NO
```

Note
In the **first test case**, the sequence $x = [50, 73, 21]$ satisfies the property. Indeed, the following holds:

- $a_1 = 52 = 73 - 21 = x_2 - x_3;$

- $a_2 = -23 = 50 - 73 = x_1 - x_2$;
- $a_3 = 23 = 73 - 50 = x_2 - x_1$;

In the **third** and **forth test case**, it is possible to show that no sequence x of length 3 staisfies either of the professor's inputs.