

Check Arithmetic Progression

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Given an array of **N** integers. Write a program to check whether an arithmetic progression can be formed using all the given elements. If possible print "YES", else print "NO".

Input:

First line of input contains a single integer T which denotes the number of test cases. Then T test cases follows. First line of each test case contains a single integer N which denotes number of elements in the array. Second line of each test case contains N space separated integers which denotes elements of the array.

Output:

For each test case, print "YES" without quotes if an arithmetic progression can be formed using all the given elements, else print "NO" without quotes.

Constraints:

$1 \leq T \leq 100$

$1 \leq N \leq 10^5$

$1 \leq \text{Arr}[i] \leq 10^5$

Example:

Input:

2

4

0 12 4 8

4

12 40 11 20

Output:

YES

NO