Strictly increasing sequence

Remember that we will only evaluate the first submission for this task. Do not press "Submit" more than once! If you don't submit at all, your solution will still be evaluated at the end of the test.

Given an array consisting of N non-negative integers. You may perform the given operation on an array element but the operation can be performed on each element no more than once.

For an element A[i] of the array , 1 <= i <= N :

• Select a non-negative X number such that, 0 <= X <= A[i] and then reduce A[i] to A[i] - X.

Check if the entire sequence can be converted into a strictly increasing sequence. Print Y_{es} if the sequence can be converted into a strictly increasing sequence, else print N_o .

Example

Consider N = 4, and A[] = [1, 15, 10, 15].

- · Initially, the array is not in Strictly Increasing Order.
- Let's select the array element, A[1] (=15) and X = 10. If we perform A[1] = A[1] X, the new array is A[] = [1, 5, 10, 15].
- Now the array A is in strictly increasing order.

Therefore the answer is "Yes".

Function description

Complete the *solve* function provided in the editor. This function takes the following 2 parameters and returns the answer:

- N: Represents the size of array A.
- · A: Represents the elements of the array.

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Input format

Note: This is the input format that you must use to provide custom input (available above the **Compile and Test** button).

- ullet First line: An integer T denoting the number of test cases.
- Next 2T lines:
 - \circ First line: An integer N denoting the number of elements in the array.
 - \circ Second line: N space separated non negative integers denoting the sequence.

Output Format:

For each test case, print 'Yes' if after all the performed operations the sequence becomes *STRICTLY INCREASING* else print 'No' on a new line.

Constraints:

$$1 <= T <= 10$$

$$1 <= N <= 100000$$

$$0 <= A[i] <= 100000$$

Sample input 1

Копировать

Yes

Yes

Explanation

The first line represents the number of test cases, t = 1.

The first test case

Given array of three elements as : 2 6 5

If we take X=3 for array element 6 then the sequence turns to be 2 (6-3) 5, or

2 3 5, which is strictly increasing.