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PROBLEMS SUBMIT STATUS STANDINGS CUSTOM TEST

C. Similar Pairs

time limit per test: 2 seconds memory limit per test: 256 megabytes input: standard input output: standard output

We call two numbers x and y similar if they have the same parity (the same remainder when divided by 2), or if |x-y|=1. For example, in each of the pairs (2,6), (4,3), (11,7), the numbers are similar to each other, and in the pairs (1,4), (3,12), they are not.

You are given an array a of n (n is even) positive integers. Check if there is such a partition of the array into pairs that each element of the array belongs to exactly one pair and the numbers in each pair are similar to each other.

For example, for the array a=[11,14,16,12], there is a partition into pairs (11,12) and (14,16). The numbers in the first pair are similar because they differ by one, and in the second pair because they are both even.

Input

The first line contains a single integer t ($1 \le t \le 1000$) — the number of test cases. Then t test cases follow.

Each test case consists of two lines.

The first line contains an **even** positive integer n ($2 \le n \le 50$) — length of array a.

The second line contains n positive integers a_1, a_2, \ldots, a_n ($1 \le a_i \le 100$).

Output

For each test case print:

- YES if the such a partition exists,
- NO otherwise.

The letters in the words YES and NO can be displayed in any case.

Example

input	Сору
7	
4	
11 14 16 12	
2	
1 8	
4	
1 1 1 1	
4	
1 2 5 6	
2 12 13	
6	
1 6 3 10 5 8	
6	
1 12 3 10 5 8	
output	Сору
YES	
NO	
YES	
YES	

Codeforces Round #644 (Div. 3)

Finished

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→ Contest materials

- Announcement
- Tutorial



Note

The first test case was explained in the statement.

In the second test case, the two given numbers are not similar.

In the third test case, any partition is suitable.

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