

Make Psycho

Problem Statement:

The number N is called **Psycho Number** . Psycho Number is calculated as follows:

First, If we factorize N , then we have some prime and their power. Assume that, there are M powers. From M powers , you should count the number of even and odd powers. Then if the number of even power is strictly greater than odd power , then we call the number N is “**Psycho Number**”, otherwise the number N is call “**Ordinary Number**”.

As for example, if $N = 67500$ then prime factorization,

$$67500 = 2^2 \times 3^3 \times 5^4.$$

Count even powers and odd powers . This number have 2 even power(2,4) and 1 odd power (3). Since even power 2 (2,4) is greater than odd power 1 (3), so the number 67500 is a Psycho Number.

Now, Given an integer K , your task is to find whether it is possible to form a subset consisting of only psycho numbers that sum up to exactly K , or not.

Input:

The first line of the input contains an integer, T ($1 \leq T \leq 2000$) indicating the number of test cases. For each test case, two lines appear, the first one contains a number N ($1 \leq N \leq 100$), representing the length of the numbers . and K ($1 \leq K \leq 10^5$). The second line of each test case contains the sequence of integers p_1, p_2, \dots, p_n ($0 \leq p_i \leq 1100$). It's mixed with psycho number and ordinary number.

Output:

For each case print “**Yes**” if possible to make K . otherwise “**No**”.

Sample Input/Output:

Sample Input	Sample Output
3	Yes
5 20	No
4 5 12 20 16	Yes
5 3	
3 5 9 2 7	
3 24	
4 4 16	

Explanation :

1st test case : psycho numbers : 4 and 16 .
possible number: 4, 16 and 20 (4+16).
k is 20 so you can make this number .

2nd test case : psycho numbers : only 9

k is 3 but it's not possible to make subset of psycho numbers which sum is equal to k .

3rd test case : psycho numbers : 4 4 16

possible number : 4 , 16 , 20(16+4) and 24 (16+4+4)

k is 24 so you can make this number .

Note : 0 and 1 is not a psycho number .

Psycho 1 : [Psycho](#)

Psycho 2 : [Psycho Function](#)

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