Exhaustive Search

[Aizu - ALDS1\_5\_A](https://vjudge.net/problem/581609/origin)

Write a program which reads a sequence *A* of *n* elements and an integer *M*, and outputs "yes" if you can make *M* by adding elements in *A*, otherwise "no". You can use an element only once.

You are given the sequence *A* and *q* questions where each question contains *Mi*.

**Input**

In the first line *n* is given. In the second line, *n* integers are given. In the third line *q* is given. Then, in the fourth line, *q* integers (*Mi*) are given.

**Output**

For each question *Mi*, print yes or no.

**Constraints**

* n ≤ 20
* q ≤ 200
* 1 ≤ elements in A ≤ 2000
* 1 ≤ Mi ≤ 2000

**Sample Input 1**

5

1 5 7 10 21

8

2 4 17 8 22 21 100 35

**Sample Output 1**

no

no

yes

yes

yes

yes

no

no

**Notes**

You can solve this problem by a Burte Force approach. Suppose solve(p, t) is a function which checkes whether you can make t by selecting elements after p-th element (inclusive). Then you can recursively call the following functions:

solve(0, M)  
solve(1, M-{sum created from elements before 1st element})  
solve(2, M-{sum created from elements before 2nd element})  
...

The recursive function has two choices: you selected p-th element and not. So, you can check solve(p+1, t-A[p]) and solve(p+1, t) in solve(p, t) to check the all combinations.

For example, the following figure shows that 8 can be made by A[0] + A[2].

