Problem A. A

Time limit	5000 ms
Mem limit	131072 kB
OS	Linux

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 M_i.

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 (M_i) are given.

Output

For each question M_i, print yes or no.

Constraints

- n ≤ 20
- q ≤ 200
- 1 ≤ elements in A ≤ 2000
- $1 \leq M_i \leq 2000$

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].