Maximum consecutive subsequence P94336_en

Given a sequence of n integer numbers $x_1 \ldots x_n$, and an integer number x, let $L(x)$ be the maximum length of all the subsequences made up of only x. That is, $L(x)$ is the maximum number of times that x appears consecutively in the sequence (or zero, if x is not there). Given several x, can you compute each $L(x)$?

Input

Input consists of several cases. Every case begins with n, followed by $x_1 \ldots x_n$, followed by a natural number q, followed by q different integer numbers x about which you are asked.

Output

For every case, print a line with the q answers $L(x)$ separated with spaces.

Sample input 1

```
9   -10 30 30 -10 -10 -10 25 25 30
3   -10 20 30

10  1 1 -4 -4 -4 6 8 8 8 8
5   8 6 5 1 -4

15  7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
2   7 8
```

Sample output 1

```
3 0 2
4 1 0 2 3
15 0
```

Problem information

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