

Print all direct relations of a node in a tree. If it is a root node, give its parent the value -1. If the *node* is not found in the *tree*, print "404 Not Found".

Input Format

The first line contains **N** (how many numbers/nodes in the tree)

The second line contains **N**-values of **X** (nodes) in the tree

The third line contains **M** (how many **X**'s to look up for direct relations)

The next **M**-lines contain the value of the **X**'s to be looked up.

Constraints

- $1 \leq N, M \leq 1000$
- $-10000 \leq X \leq 10000$

Output Format

M lines stating the direct relations (parent and child nodes) of the queried node.

Sample Input 0

```
10
10 6 19 2 7 22 16 20 13 9
3
10
6
13
```

Sample Output 0

```
-1 6 19
10 2 7
16
```