Problem A

You will be given a list of numbers and a list of queries. You have to find out if the queries exist in the list.

Input:
First line: n, a number. (1<=n<=10^5)
Next n lines: an integer v (-2147483648<=v <=2147483647), the numbers in the list
Next line: m, a number (1<=m<=10^5), the number of keys.
Next m lines: an integer q (-2147483648<= q <=2147483647), the queries to be searched for.

Output:
m lines, each containing 1 if the query is found, otherwise 0.

Sample Case:

Input	Output
6 1 2 3 4 5 7 7 1 2 3 4 5 9 8	1 1 1 1 1 0 0

Problem B

You will be given a list of numbers. Insert them into a min heap. Then extract the minimum value from the heap until it is non-empty.

Input:
First line: n, a number. (1<=n<=10^5)
Next n lines: an integer v (-2147483648<=v <=2147483647), the numbers in the list

Output:
n lines, each containing the numbers extracted from the heap.

Sample Case:

Input	Output
9 4 3 2 1 6 7 8 9 55	1 2 3 4 6 7 8 9 55