Match the Shoes

The *popularity order* of an item is defined as follows:

- Item A is more popular than item B if it was ordered more times than item B.

- If item A and item B were ordered an equal number of times, then the item with a smaller ID (see below) is more popular.

Choosing the right pair of shoes to purchase with an article of clothing is not an obvious decision. Given the purchase frequency for shoes that were previously purchased with an item, can you help a customer by showing them the K most popular shoes (in *popularity order*)?

Input Format

The first line contains three space-separated integers describing the following respective values:

1. K - The number of most popular shoes you must suggest.

2. M - The number of distinct shoe IDs.

3. N - The number of orders.

Each line i of the N subsequent lines (where $0 \leq i < N$) contains a single integer, A_i, denoting the ID number of shoes that were previously ordered with the item.
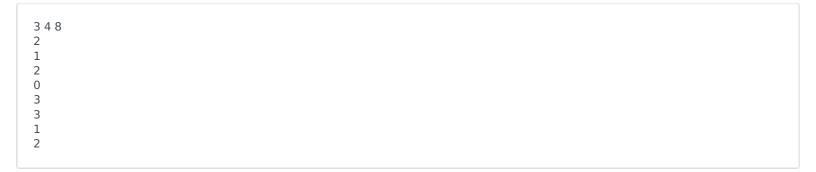
Constraints

- $1 \leq K \leq 100$

- $k \leq M \leq 50000$

- $1 \leq N \leq 1000000$

- $0 \leq A_i < M$

Output Format

Sort your list of K shoe suggestions in order of highest to lowest popularity, and then print each element of the prioritized list on a new line.

Sample Input

```
3 4 8
2
1
2
0
3
3
1
2
```

Sample Output

```
2
1
3
```

Explanation

- The shoes with $ID = 2$ appeared 3 times. Because this is the most popular item, we print it first.

- The shoes with $ID = 1$ and $ID = 3$ appear 2 times each. Because both shoes appear the same number of times, they are prioritized by ascending ID number and printed on the second and third lines.

- Shoe $ID = 0$ is not part of this list, as its popularity rank is less than $K = 3$.