



## E: Meet and Greet



As is commonly known, Bessie is a very social cow. A week ago she came back from a long journey and since then she has been on a mission to visit all of her best friends.

Bessie has a ranking system for her  $N$  friends. She attributes the number 1 to her most liked friend, the number 2 to her second most liked friend, and so on up to her least liked friend, which has the number  $N$ .

Bessie has noted down all the visits she made in the last week but she asks herself, did she really visit all of her  $K$  best friends? Your goal is to help her.

### Input

- Line 1: Three space-separated integers,  $N$  ( $1 \leq N \leq 50\,000$ ),  $K$  ( $1 \leq K \leq N$ ) and  $V$  ( $1 \leq V \leq 50\,000$ ) the number of visits she made.
- Lines 2.. $(V + 1)$ : These  $V$  lines describe Bessie's visits. Each line contains an integer  $i$  indicating that Bessie visited her  $i$ -th most liked friend.

Note that Bessie might pay several visits to the same friend!

### Output

- Line 1: Output "YES" if Bessie visited all of her  $K$  most liked friends at least once and "NO" otherwise.

### Sample Input 1

```
6 3 6
3
4
6
5
1
4
```

### Sample Output 1

```
NO
```

### Sample Input 2

```
6 3 6
3
2
6
5
1
4
```

### Sample Output 2

```
YES
```