

# Index of numbers (2)

You are given  $n$  integers and  $m$  queries. For each query, you are given a number  $p$ , you should output the number of distinct values that each of them occurs at least  $p$  times in given integers.

## Input

- The first line contains two integers  $n, m$  ( $1 \leq n, m \leq 10^5$ ).
- The second line contains  $n$  integers ( $-10^9 \leq a_i \leq 10^9$ ).
- The third line contains  $m$  integers representing  $m$  queries ( $1 \leq p_j \leq n$ ).

## Output

For each query, output the number of distinct values that occurs at least  $p$  times.

## Sample

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