Sherlock and Watson



Problem Statement

John Watson performs an operation called *Right Circular Rotation* on an integer array $a_0, a_1 \dots a_{n-1}$. *Right Circular Rotation* transforms the array from $a_0, a_1 \dots a_{N-1}$ to $a_{N-1}, a_0, \dots a_{N-2}$.

He performs the operation K times and tests Sherlock's ability to identify the element at a particular position in the array. He asks Q queries. Each query consists of one integer x, for which you have to print the element a_x .

Input Format

The first line consists of 3 integers N, K and Q separated by a single space.

The next line contains N space separated integers which indicates the elements of the array A. Each of the next Q lines contain one integer per line denoting x.

Output Format

For each query, print the value in the location in a newline.

Constraints

 $1 \le N \le 10^5$

 $1 \le A[i] \le 10^5$

 $1 \le K \le 10^5$

 $1 \le Q \le 500$

 $0 \le x \le N-1$

Sample input

323 123 0 1 2

Sample output

2 3 1

Explanation

After one rotation array becomes, 3 1 2.

After another rotation array becomes 2 3 1.

Final array now is 2,3,1. 0th element of array is 2.

1st element of array is 3.

2nd element of array is 1.