**BALLGAME**

Attempted by: **60**

/

Accuracy: **72%**

/

Maximum Points: **30**

/

0 Votes

/

No tags

**PROBLEM**

**EDITORIAL**

**MY SUBMISSIONS**

**ANALYTICS**

[**DISCUSSIONS**](https://www.hackerearth.com/problem/algorithm/ballgame/discussion/)NEW

Two friends, Max and Jack are playing a game. Max has N balls with numbers written on them which he placed on the table in a straight line. Max shows Jack, the numbers written on each ball and then hide the numbers by wrapping all the balls. Now Max will rearrange all the balls by performing 2 types of operations. The first type of operation is that he will choose a continuous segment of balls and does the right shift operation on all the balls of that segment. The second type of operation will be that he will pick a continuous segment of balls and reverse their order. In total, Max performs K operations known to Jack. Now, Max gives some M positions to Jack and Jack has to tell the values written on the balls at those positions. Help Max in finding the values.

**Input:**  
The first line contains three integer numbers N, K, and M.  
The second line contains N integer numbers A1, A2, ..., An denoting the values on each of the balls.  
Then K lines follow. i-th of them contains three integer numbers Ti, Li, Ri, where Ti is the type of i-th operation. If Ti is 1 then shift all the balls from position Li to Ri by performing cyclic shift of that segment (that is, for every x such that  Li ≤ x < Ri,  new values at position x+1 becomes equal to old values at position x and new value at Li becomes the old value of Ri). If ti is 2 then reverse the segment from Li to Ri.  
The last line contains M integer numbers B2, B2, ..., Bm — indices whose value Jack has to tell

**Output:**  
Print m space-separated numbers in a single line, i-th of which is equal to the number on the ball at index bi after all operations are done.

**Constraints:**

 1 ≤ N,K ≤ 2.105    
 1 ≤ M ≤ 100     
 1 ≤ Ai ≤ 109      
 1 ≤ Ti ≤ 2     
 1 ≤ Li ≤ Ri ≤ n      
 1 ≤ Bi ≤ n

**SAMPLE INPUT**

6 3 5

1 2 3 4 5 6

2 1 3

2 3 6

1 1 6

2 2 1 5 3

**SAMPLE OUTPUT**

3 3 1 5 2

**Explanation**

The initial order of balls - 1 2 3 4 5 6

After 1st operation, i.e. reversing segment 1 to 3 the order of balls become 3 2 1 4 5 6

After 2nd operation, i.e. reversing segment 3 to 6 the order of balls become 3 2 6 5 4 1

After 3rd operation, i.e. right shifting segment 1 to 6 the order of balls become 1 3 2 6 5 4

**Time Limit:**1.0 sec(s) for each input file.

**Memory Limit:**256 MB

**Source Limit:**1024 KB

1. #include<bits/stdc++.h>
2. #define ll long long
3. #define li long int
4. #define fastIo ios\_base::sync\_with\_stdio(0);cin.tie(0);cout.tie(0);
5. #define mod 1000000007
6. #define fs first
7. #define sc second
8. #define pb push\_back
9. #define mp make\_pair
10. #define endl "\n"
11. #define test ll t;cin>>t;while(t--)
12. using namespace std;
13. int main(){
14. fastIo
15. ll n,q,m;
16. cin>>n>>q>>m;
17. vector<ll> a(n);
18. for(ll i=0;i<n;i++)
19. cin>>a[i];
20. vector<vector<ll>> v(q,vector<ll>(3));
21. for(ll i=0;i<q;i++) cin>>v[i][0]>>v[i][1]>>v[i][2];
22. for(ll i=0;i<m;i++){
23. ll x;
24. cin>>x;
25. x=x-1;
26. for(ll j=q-1;j>=0;j--){
27. ll l=v[j][1]-1, r=v[j][2]-1;
28. if(x>=l && x<=r){
29. if(v[j][0]==1){
30. if(x==l) x=r;
31. else x=x-1;
32. }
33. else{
34. x=(l+r-x)%n;
35. }
36. }
37. }
38. cout<<a[x]<<" ";
39. }
40. return 0;
41. }