Reversal Algorithm

Given an array of N size. The task is to rotate array by **d** elements where **d** is less than or equal to N.

Input:

The first line of input contains a single integer T denoting the number of test cases. Then T test cases follow. Each test case consist of three lines. The first line of each test case consists of an integer N, where N is the size of array.
The second line of each test case contains N space separated integers denoting array elements. The third line of each test case contains "d" .

Output:

Corresponding to each test case, in a new line, print the modified array.

Constraints:

$1 \leq T \leq 200$
$1 \leq N \leq 200$
$1 \leq A[i] \leq 1000$

Example:

Input

1
5
1 2 3 4 5
2

Output
3 4 5 1 2