Swap and Awe

ZPRAC-16-17-Lab5

[25 points]

Given an array A of N elements, and a series of swap operations, print the final array.

Input Format:
First line contains N, the size of the array
Second line contains N space separated integers, the elements of the array A.
Third line contains M, the number of swap operations.
There are M lines following this, each line containing two integers i and j, representing the swap of elements A[i] and A[j].

Constraints:
$1 \leq N \leq 1000$
$1 \leq M \leq 100$
$-10000 \leq A[i] \leq 10000$

Output Format:
Print N comma separated integers which are the elements of array A after all the swap operations.

Examples:

Input:
5
1 2 3 4 5
2
0 4
1 2
Output:
5,3,2,4,1
Explanation: A[0] = 1 and A[4] = 5 are swapped, then A[1] = 2 and A[2] = 3 are swapped.