#include<bits/stdc++.h>

using namespace std;

void part(int \*arr, int pivot, int n){

int i = 0, j=0,k=n-1;

while(i<=k){

if(arr[i]==0){

cout <<"Swapping index "<<i<<" and index "<<j<< endl;

swap(arr[i++],arr[j++]);

}

if(arr[i]==2){

cout <<"Swapping index "<<i<<" and index "<<k<< endl;

swap(arr[i],arr[k]);

k--;

}

if(arr[i]==1){

i++;

}

}

}

int main(){

int n;

cin>>n;

int arr[n];

for(int i=0;i<n;i++){

cin>>arr[i];

}

part(arr,1,n);

for(auto x: arr){

cout<<x<<endl;

}

}