#include<iostream>

using namespace std;

//

//void main() {

//

// //reference

//

// //int value = 100;

// //int& ref = value;

// ////ref = 0;

// ///\*int value2 = 200;

// //&ref = value2;\*/ //error

// //cout << value << endl;

// //cout << ref << endl;

//

//

//}

//void AddData(int&data) {

// data += 1000;

//}

//readonly reference

//void AddData(const int& data) {

// //data += 1000;

// cout << data << endl;

//}

//

//void main() {

// int data = 100;

// cout << data << endl;

// AddData(data);

// cout << data << endl;

//}

int\* ReserveArray(const int& size) {

auto newarray = new int[size];

return newarray;

}

void initArray(int\*& arr, const int& size) {

int min = 1;

int max = 100;

int random = 0;

for (size\_t i = 0; i < size; i++)

{

random = min + rand() % (max - min);

arr[i] = random;

}

}

void printArray(int\*& arr, const int& size) {

for (size\_t i = 0; i < size; i++)

{

cout << arr[i] << " ";

}cout << endl;

}

void popBack(int\*& arr, int& size) {

auto newarray = new int[size - 1]{};

for (size\_t i = 0; i < size-1; i++)

{

newarray[i] = arr[i];

}

delete[]arr;

arr = newarray;

newarray = nullptr;

size--;

}

void popFront(int\*& arr, int& size) {

auto newarray = new int[size - 1];

for (size\_t i = 1; i < size; i++)

{

newarray[i - 1] = arr[i];

}

delete[]arr;

arr = newarray;

newarray = nullptr;

size--;

}

void main() {

int size = 0;

cin >> size;

int\* arr=ReserveArray(size);

initArray(arr, size);

/\*printArray(arr, size);

popBack(arr, size);

popFront(arr, size);

popFront(arr, size);

popFront(arr, size);

printArray(arr, size);\*/

//popWithIndex

//popLastBlocks

//popFirstBlocks

//popBlocks

}