#include <iostream>

using namespace std;

void ChangeLocation(char \*Array, int b1, int b2) {

if (b1 >= b2)

return;

char temp = Array[b1];

Array[b1] = Array[b2];

Array[b2] = temp;

ChangeLocation(Array, b1 + 1, b2 - 1);

}

void PrintPatternHelper(int n, int line) {

if (line > n) return;

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

cout << "1 ";

}

cout << endl;

PrintPatternHelper(n, line + 1);

}

void PrintPattern(int &n) {

cout << n << endl;

for (int i = n - 1; i > 0; i--) {

for (int j = 0; j < 2; j++) cout << i << " ";

cout << endl;

}

PrintPatternHelper(n, 1);

}

int main() {

char arr[8] = {'C', 'O', 'M', 'P', 'U', 'T', 'E', 'R'};

ChangeLocation(arr, 2, 6);

cout << "After ChangeLocation: ";

for (int i = 0; i < 8; i++) cout << arr[i] << " ";

cout << endl;

int n = 4;

cout << "\nPattern:\n";

PrintPattern(n);

return 0;

}