#include <iostream>

#include <string.h>

#include <conio.h>

using namespace std;

void CountingSort(int A[],int N,int B[])

{

const int K = 10;

int i,j;

int C[K];

for(i = 0; i < K; i++)

{

C[i] = 0;

}

for(j = 0; j < N; j++) // determine the index of the digits called frequency

{

C[A[j]] = C[A[j]] + 1;

}

for(i = 1; i < K; i++) //intuative frequeucy 4 ya 4 se choti values ktni bar arahi hai

{

C[i] = C[i] + C[i-1];

}

for(j = N-1; j>=0; j--) // 7 ya 7 se choti jitni hai waha wo array k index per assign hojae

{

B[C[A[j]]-1] = A[j];

C[A[j]] = C[A[j]] - 1;

}

}

void main()

{

int A[] = {8,7,6,5,4,9,8,7,6,5,4,3,2,1,0};

int B[15];

int N = 15;

int i;

CountingSort(A,N,B);

for(i = 0; i < N;i++)

{

cout << B[i] << endl;

}

getch();

}





