Bùi Tấn Phát

Bài tập

# include<iostream>

# include <cmath>

# define MAX 100

Using namespace std;

Int Nhap(int a[], int n) {

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

Cout<<”Nhap so a[“<<i<<”] la: “;

Cin>>a[i];

}

}

Int Xuat(int a[], int n) {

Cout<<”Cac mang gom: “<<endl;

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

Cout<<a[i]<<endl;

}

}

Int TangDanKoSapXep(int a[], int n) {

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

If(a[i]<a[i+1]) {

Cout <<”La sap xep tang”<<endl;

Break;

}else {

Cout<<”La sap xep khong tang”<<endl;

Break;

}

}

}

Int KTDoiXung(int a[], int n) {

For(int i = 0; i < n/2;i++) {

If(a[i] != a[n -i -1]) {

Return -1;

Break;

}

}

Return 1;

}

Int LietKe1Lan(int a[], int n) {

Int dem=0;

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

If(a[i]==a[i-1] || a[i]==a[i+1]) {

Dem++;

}

If(dem==0) {

Cout<<”so ko trung la: “<<a[i]<<endl;

}

Else if(dem==1) {

Cout<<”so trung la: “<<a[i]<<endl;

}

}

}

Int soAm(int a[], int n) {

Int min = a[0];

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

If(a[i]<min) {

Min=a[i];

}

}

Return min;

}

Int ViTriAmLonNhat(int a[], int n) {

Int min = soAm(a, n);

For(int i = 0;i < n; i++)

{

If(a[i] == min) {

Cout<<”Vi tri thu: “<<i<<endl;}

}

}

Void ThemPhanTu(int a[], int n, int val, int pos){

If(n >= MAX){

Return;

}

// Neu pos <= 0 => Them vao dau

If(pos < 0){

Pos = 0;

}

Else if(pos > n){

Pos = n;

}

For(int i = n; i > pos; i--){

A[i] = a[i-1];

}

A[pos] = val;

++n;

}

Void XoaPhanTu(int a[], int n, int pos){

If(n <= 0){

Return;

}

If(pos < 0){

Pos = 0;

}

Else if(pos >= n){

Pos = n-1;

}

For(int i = pos; i < n – 1; i++){

A[i] = a[i+1];

}

--n;

}

Int main() {

Int a[MAX], n;

Do {

Cout<<”Nhap so n: “;cin>>n;

}while(n<=0);

Cout<<”Ta co: “<<endl;

Nhap(a, n);

Xuat(a, n);

TangDanKoSapXep(a, n);

If(KTDoiXung(a,n)== 1) {

Cout<<”Mang doi xung “<<endl;

}else {

Cout<<”Mang khong doi xung “<<endl;

}

LietKe1Lan(a, n);

ViTriAmLonNhat(a, n);

Cout<<”THEM PHAN TU”<<endl;

Int val, pos;

Cout<<”Nhap so can them: “;cin>>val;

Cout<<”Nhap vi tri muon chen: “;cin>>pos;

ThemPhanTu(a, n, val, pos);

Cout<<”Mang sau khi them: “<<endl;

Xuat(a, n);

Cout<<”XOA PHAN TU”<<endl;

Cout<<”Nhap vi tri muon xoa: “;cin>>pos;

XoaPhanTu(a, n, pos);

Cout<<”Mang sau khi xoa: “<<endl;

Xuat(a, n);

}