**Bài tập về nhà**

# 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);

}