#include<iostream>

#include<math.h>

using namespace std;

void nhapmang(float a[], int& n){

cout<<"Nhap n: ";

cin>>n;

while(n>=100 || n<=0){

cout<<"Nhap n>0: ";

cin>>n;

}

cout<<"Nhap mang:\n";

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

cout<<"a["<<i<<"]= ";

cin>>a[i];

}

}

void xuatmang(float a[], int n){

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

cout<<a[i]<<" ";

}

// cau 3

int vitrixdautien(float a[], int n, int x){

int vt=-1;

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

if(a[i]==x)

{

vt=i;

break;

}

}

return vt;

}

int vitrixcuoicung(float a[], int n, int x){

int vt=-1;

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

if(a[i]==x)

{

vt=i;

}

}

return vt;

}

//cau 4a

bool ktsnt( int n){

if(n<=1)

return 0;

else{

for (int i = 2; i <= sqrt(n); i++){

if(n%i==0)

return false;

}

}

return true;

}

int snt( float a[], int n){

int max= 0;

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

if (a[i] > max && ktsnt(a[i]))

max = a[i];

}

if( max == 0 )

return 0;

else

return max;

}

// cau 4b

int timsodoixung(int n){

int sodoi=0;

int socuoi;

while(n>0){

socuoi = n%10;

sodoi = (sodoi\*10)+socuoi;

n = n/10;

}

return sodoi;

}

void ktsdx(float a[], int n){

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

if(timsodoixung(a[i]) == a[i])

cout<<a[i]<<" ";

}

}

// cau 4c

void tangdan(float a[], int n){

int dem=0;

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

if(a[i]<a[i+1])

dem++;

}

if(dem==n-1)

cout<<"\nDay so tang dan";

else

cout<<"\nDay so khong tang dan";

}

// cau 4d

void sapxepgiamdan(float a[], int n){

int x;

for(int i=0; i<n-1; i++)

for(int j=i+1; j<n; j++){

if(a[i]<a[j]){

x=a[i];

a[i]=a[j];

a[j]=x;

}

}

}

int main(){

float a[100];

int n;

nhapmang(a,n);

int x;

cout<<"\nNhap x: ";

cin>>x;

cout<<"Vi tri x dau tien : "<<vitrixdautien(a,n,x);

cout<<"\nVi tri x cuoi cung : "<<vitrixcuoicung(a,n,x);

if (snt(a, n) == 0)

cout << "\nMang khong ton tai so nguyen to";

else

cout << "\nSo nguyen to lon nhat trong mang la: " << snt(a, n);

sapxepgiamdan(a,n);

cout<<"\nMang sap xep giam dan: ";

xuatmang(a,n);

cout<<"\nSo doi xung la: ";

ktsdx(a,n);

}