#include<iostream>

namespace arr{

//input elements in array

int inputarray(int a[], int n)

{

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

std::cin >> a[i];

}

}

//bubble sort array

int bubbleSort(int a[], int n)

{

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

{

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

{

if (a[j] > a[j+1])

{

int temp = a[j];

a[j] = a[j+1];

a[j+1] = temp;

}

}

}

}

//binary search

int binarySearch(int a[], int n, int x)

{

int i = 0, j = n - 1;

while (i <= j)

{

int m = (i + j) / 2;

if (a[m] == x)

{

return m;

}

else if (a[m] < x)

{

i = m + 1;

}

else

{

j = m - 1;

}

}

}

}