* Complexity is O(nlogn) and best case(using O(nlogn) sorting technique). It can't be linear because no algorithm to sort array in linear time, if it is comparison based. Other ways like radix sort could make it linear time.

#include <iostream>

using namespace std;

void bubblesort(int a[],int n){

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

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

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

int temp=a[j];

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

a[j+1]=temp;

}

}

}

}

void swap(int \*x, int \*y)

{

int temp = \*x;

\*x = \*y;

\*y = temp;

}

int main(){

int n;

cout<<"Enter size of array : ";

cin>>n;

int arr[n];

cout<<"Enter array \n";

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

cin>>arr[i];

}

bubblesort(arr,n);

for (int i=0; i<n-1; i += 2)

swap(&arr[i], &arr[i+1]);

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

cout<<arr[i];

if(i!=n-1)cout<<" ,";

}

return 0;

}