#include <iostream>

using namespace std;

int partition(int a[], int low, int high)

{

int pivot=a[low];

int i=low;

int j=high;

while(i<j)

{

while(pivot>=a[i] && i<=high-1)

{

i++;

}

while(pivot<a[j] && j>=low+1)

{

j--;

}

if(i<j)

swap(a[i],a[j]);

}

swap(a[low], a[j]);

return j;

}

void qs(int a[], int low, int high){

if(low<high)

{

int pindex = partition(a,low,high);

//left array

qs(a,low,pindex-1);

//right array

qs(a,pindex+1,high);

}

}

int main()

{

int a[]={5,6,3,9,1};

int low=0;

int high = 4;

qs(a,low,high);

for(int i=0; i<5; i++)

{

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

}

return 0;

}