

Status	Finished
Started	Saturday, 12 April 2025, 12:49 PM
Completed	Saturday, 12 April 2025, 1:05 PM
Duration	15 mins 18 secs
Marks	1.00/1.00
Grade	10.00 out of 10.00 (100%)

Question 1

Correct

Mark 1.00 out of 1.00

Write a Program to Implement the Quick Sort Algorithm

Input Format:

The first line contains the no of elements in the list-n

The next n lines contain the elements.

Output:

Sorted list of elements

For example:

Input	Result
5 67 34 12 98 78	12 34 67 78 98

Answer:

```

1  #include<stdio.h>
2  void swap(int*a,int*b){
3      int t=*a;
4      *a=*b;
5      *b=t;
6  }
7  int p(int a[],int l,int h){
8      int pi=a[h];
9      int i=(l-1);
10     for(int j=l;j<=h-1;j++){
11         if(a[j]<=pi){
12             i++;
13             swap(&a[i],&a[j]);
14         }
15     }
16     swap(&a[i+1],&a[h]);
17     return i+1;
18 }
19 void quicksort(int a[],int l,int h){
20     if(l<h){
21         int pli=p(a,l,h);
22         quicksort(a,l,pli-1);
23         quicksort(a,pli+1,h);
24     }
25 }
26 int main(){
27     int n;
28     scanf("%d",&n);
29     int a[n];
30     for(int i=0;i<n;i++){
31         scanf("%d",&a[i]);
32     }
33     quicksort(a,0,n-1);
34     for(int i=0;i<n;i++){
35         printf("%d ",a[i]);
36     }
37
38
39 }
```

	Input	Expected	Got	
✓	5 67 34 12 98 78	12 34 67 78 98	12 34 67 78 98	✓

	Input	Expected	Got	
✓	10 1 56 78 90 32 56 11 10 90 114	1 10 11 32 56 56 78 90 90 114	1 10 11 32 56 56 78 90 90 114	✓
✓	12 9 8 7 6 5 4 3 2 1 10 11 90	1 2 3 4 5 6 7 8 9 10 11 90	1 2 3 4 5 6 7 8 9 10 11 90	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.