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<b>Started on</b>	Wednesday, 20 November 2024, 7:32 PM
<b>State</b>	Finished
<b>Completed on</b>	Wednesday, 20 November 2024, 7:34 PM
<b>Time taken</b>	1 min 37 secs
<b>Marks</b>	1.00/1.00
<b>Grade</b>	<b>10.00</b> out of 10.00 ( <b>100%</b> )

## 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
3  int partition(int arr[], int low, int high) {
4      int pivot = arr[high];
5      int i = low - 1;
6      for (int j = low; j < high; j++) {
7          if (arr[j] <= pivot) {
8              i++;
9              int temp = arr[i];
10             arr[i] = arr[j];
11             arr[j] = temp;
12         }
13     }
14     int temp = arr[i + 1];
15     arr[i + 1] = arr[high];
16     arr[high] = temp;
17     return i + 1;
18 }
19
20 void quickSort(int arr[], int low, int high) {
21     if (low < high) {
22         int pi = partition(arr, low, high);
23         quickSort(arr, low, pi - 1);
24         quickSort(arr, pi + 1, high);
25     }
26 }
27
28 int main() {
29     int n;
30     scanf("%d", &n);
31
32     int arr[n];
33     for (int i = 0; i < n; i++) {
34         scanf("%d", &arr[i]);
35     }
36
37     quickSort(arr, 0, n - 1);
38
39     for (int i = 0; i < n; i++) {
40         printf("%d ", arr[i]);
41     }
42
43     return 0;
44 }
```

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

[◀ 4-Two Elements sum to x](#)

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