

## 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  #include<stdlib.h>
3  void swap(int* a,int* b){
4      int temp = *a;
5      *a = *b;
6      *b = temp;
7  }
8  void quicksort(int* arr, int left, int right) {
9      if (left < right) {
10
11          int pivot = left;
12          int i = left + 1;
13          int j = right;
14
15          while (i <= j) {
16              while (i <= right && arr[i] < arr[pivot]) {
17                  i++;
18              }
19              while (j >= left && arr[j] > arr[pivot]) {
20                  j--;
21              }
22              if (i <= j) {
23                  swap(&arr[i], &arr[j]);
24                  i++;
25                  j--;
26              }
27          }
28          swap(&arr[j], &arr[pivot]);
29          quicksort(arr, left, j - 1);
30          quicksort(arr, j + 1, right);
31      }
32  }
33
34  int main(){
35      int n;
36      scanf("%d",&n);
37      int arr[n];
38      for(int i=0;i<n;i++) scanf("%d",&arr[i]);
39      quicksort(arr,0,n-1);
40      for(int i=0;i<n;i++) printf("%d ",arr[i]);
41
42      return 0;
43  }
```

	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

Jump to...

1-DP-Playing with Numbers ▶