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:

```c
#include<stdio.h>
void Quicksort(int nums[],int left,int right);
int main()
{
    int n;
    scanf("%d",&n);
    int nums[n];
    for(int i=0;i<n;i++)
    {
        scanf("%d",&nums[i]);
    }
    int left=0,right=n-1;
    Quicksort(nums,left,right);
    for(int i=0;i<n;i++)
    {
        printf("%d ",nums[i]);
    }
}
void Quicksort(int nums[],int left,int right)
{
    int i,j,temp,pivot;
    if(left<right)
    {
        pivot=left;
        i=left;
        j=right;
        while(i<j)
        {
            while(nums[i]<=nums[pivot] && i<=right-1)
                i++;
            while(nums[j]>nums[pivot] && j>=left+1)
                j--;
            if(i<j)
            {
                temp=nums[i];
                nums[i]=nums[j];
                nums[j]=temp;
            }
        }
        temp=nums[pivot];
        nums[pivot]=nums[j];
        nums[j]=temp;
        Quicksort(nums,left,j-1);
        Quicksort(nums,j+1,right);
```

```
45   }    ʃ
46   }
47
```

	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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1-DP-Playing with Numbers ►