H

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Test Name:

Mock Test

Taken On:

2 Apr 2023 22:26:46 IST

Time Taken:

5 min 26 sec/ 15 min

Invited by:

Ankush

Invited on:

2 Apr 2023 22:26:36 IST

Skills Score:

Tags Score:

Algorithms 105/105

Core CS 105/105

Easy 105/105

Problem Solving 105/105

Search 105/105 Sorting 105/105

problem-solving 105/105

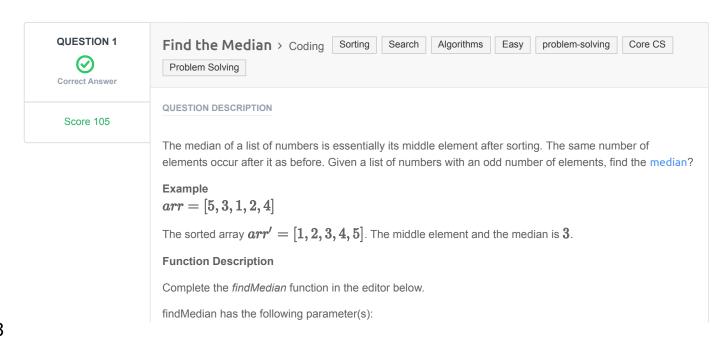
100% 105/105

scored in **Mock Test** in 5 min 26 sec on 2 Apr 2023 22:26:46 IST

Recruiter/Team Comments:

No Comments.





• int arr[n]: an unsorted array of integers

Returns

int: the median of the array

Input Format

The first line contains the integer n, the size of arr.

The second line contains $m{n}$ space-separated integers $m{arr}[i]$

Constraints

- $1 \le n \le 1000001$
- **n** is odd
- $-10000 \le arr[i] \le 10000$

Sample Input 0

```
7
0 1 2 4 6 5 3
```

Sample Output 0

3

Explanation 0

The sorted arr = [0, 1, 2, 3, 4, 5, 6]. It's middle element is at arr[3] = 3.

CANDIDATE ANSWER

Language used: C

```
1 #include <stdio.h>
 2 void swap(int* a, int* b)
 3 {
 4
      int temp = *a;
      *a = *b;
       *b = temp;
7 }
8
9 //Partition Function
10 int partition(int arr[], int low, int high)
11 {
     int pivot = arr[high];
      int i = (low - 1);
14
     int j;
     for (j = low; j \le high - 1; j++) {
         if (arr[j] <= pivot) {</pre>
              i++;
               swap(&arr[i], &arr[j]);
          }
       swap(&arr[i + 1], &arr[high]);
      return (i + 1);
23 }
25 // Quick Sort function
26 void quicksort(int Arr[], int low, int high)
27 {
      if (low < high) {
        // pi = Partition index
          int pi = partition(Arr, low, high);
```

```
quicksort(Arr, low, pi - 1);
            quicksort(Arr, pi + 1, high);
      }
34 }
35 int main(){
     int N, A[100005];
      long sum=0;
      scanf("%d", &N);
      int t=0;
     for(int i=1;i<=N;i++){
41
           scanf("%d",&A[i]);
      quicksort(A,1,N);
      printf("%d",A[(N+1)/2]);
45 }
   TESTCASE
             DIFFICULTY
                                         STATUS
                                                    SCORE
                                                           TIME TAKEN
                                                                          MEMORY USED
                              TYPE
  Testcase 1
                                        Success
                                                      0
                                                             0.0469 sec
                                                                             7.56 KB
                  Easy
                           Sample case
                                        Success
  Testcase 2
                  Easy
                           Hidden case
                                                             0.021 sec
                                                                             7.46 KB
  Testcase 3
                  Easy
                           Hidden case

    Success

                                                      35
                                                             0.0263 sec
                                                                             7.46 KB
  Testcase 4
                                        Success
                                                      35
                                                             0.0408 sec
                                                                             7.88 KB
                  Easy
                           Hidden case
No Comments
```

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