

# Recursion

Problem

Submissions

Leaderboard

Discussions

Write a C function to find the smallest element in an array using recursion. If length of array is zero print "NULL".

## Input Format

Line1: Number of elements in array  
Line2: Array elements(space separated)

## Constraints

$0 \leq \text{array.length} \leq 1000$

## Output Format

Smallest element in array

## Sample Input 0

```
5
3 4 5 6 9
```

## Sample Output 0

```
3
```

[f](#) [t](#) [in](#)**Contest ends in a day****Submissions: 17****Max Score: 6****Difficulty: Medium****Rate This Challenge:**

☆☆☆☆☆

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C



```
1 #include <stdio.h>
2 #include <stdlib.h>
3
4 int find_min(int arr[], int n)
5 {
6     if (n == 1) {
7         return arr[0];
8     }
9
10    int min_of_rest = find_min(arr + 1, n - 1);
11
12    if (arr[0] < min_of_rest) {
13        return arr[0];
```

```
14 } else {
15     return min_of_rest;
16 }
17 }
18
19 int main() {
20     int n;
21     scanf("%d", &n);
22
23     if (n == 0) {
24         printf("NULL");
25         exit(0);
26     }
27
28     int arr[n];
29     for (int i = 0; i < n; i++) {
30         scanf("%d", &arr[i]);
31     }
32
33     int x = find_min(arr, n);
34     printf("%d", x);
35
36     return 0;
37 }
```

Line: 1 Col: 1

[Upload Code as File](#) ☐ Test against custom input

Run Code

Submit Code