

Our Solution(s)

Run Code

Your Solutions

Run Code

Solution 1

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 // Best: O(n) time | O(1) space
4 // Average: O(n) time | O(1) space
5 // Worst: O(n^2) time | O(1) space
6 function quickselect(array, k) {
7   const position = k - 1;
8   return quickselectHelper(array, 0, array.length - 1, position);
9 }
10
11 function quickselectHelper(array, startIdx, endIdx, position) {
12   while (true) {
13     if (startIdx > endIdx) {
14       throw new Error('Your algorithm should never arrive here!');
15     }
16     const pivotIdx = startIdx;
17     let leftIdx = startIdx + 1;
18     let rightIdx = endIdx;
19     while (leftIdx <= rightIdx) {
20       if (array[leftIdx] > array[pivotIdx] && array[rightIdx] < array[pivotIdx]) {
21         swap(leftIdx, rightIdx, array);
22       }
23       if (array[leftIdx] <= array[pivotIdx]) {
24         leftIdx++;
25       }
26       if (array[rightIdx] >= array[pivotIdx]) {
27         rightIdx--;
28       }
29     }
30     swap(pivotIdx, rightIdx, array);
31     if (rightIdx === position) {
32       return array[rightIdx];
33     } else if (rightIdx < position) {
```

Solution 1 Solution 2 Solution 3

```
1 function quickselect(array, k) {
2   // Write your code here.
3 }
4
5 // Do not edit the line below.
6 exports.quickselect = quickselect;
7
```

Our Tests

Custom Output

Submit Code

```
100 # Test Case 100 - Timeout (1/1)
101 # Run: python3 program.py getMaxSum(100, 100, 100), Get the Max sum(100)
102 # Out:
103
104 # Test Case 101 - Timeout (1/1)
105 # Run: python3 program.py getMaxSum(100, 100, 100), Get the Max sum(100)
106 # Out:
107
108 # Test Case 102 - Timeout (1/1)
109 # Run: python3 program.py getMaxSum(100, 100, 100), Get the Max sum(100)
110 # Out:
111
112 # Test Case 103 - Timeout (1/1)
113 # Run: python3 program.py getMaxSum(100, 10, 10, 10, 10, 10, 10, 10, 10, 10), Get the Max s
114 # Out:
```

Run or submit code when you're ready.