

PromptScratchpadOur Solution(s)Video Explanation

Run Code

Solution 1Solution 2

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 // O(log(n)) time | O(log(n)) space
4 function shiftedBinarySearch(array, target) {
5   return shiftedBinarySearchHelper(array, target, 0, array.length - 1);
6 }
7
8 function shiftedBinarySearchHelper(array, target, left, right) {
9   if (left > right) return -1;
10  const middle = Math.floor((left + right) / 2);
11  const potentialMatch = array[middle];
12  const leftNum = array[left];
13  const rightNum = array[right];
14  if (target === potentialMatch) {
15    return middle;
16  } else if (leftNum <= potentialMatch) {
17    if (target < potentialMatch && target >= leftNum) {
18      return shiftedBinarySearchHelper(array, target, left, middle - 1);
19    } else {
20      return shiftedBinarySearchHelper(array, target, middle + 1, right);
21    }
22  } else {
23    if (target > potentialMatch && target <= rightNum) {
24      return shiftedBinarySearchHelper(array, target, middle + 1, right);
25    } else {
26      return shiftedBinarySearchHelper(array, target, left, middle - 1);
27    }
28  }
29 }
30
31 exports.shiftedBinarySearch = shiftedBinarySearch;
32
```