

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 def shiftedBinarySearch(array, target):
5     return shiftedBinarySearchHelper(array, target, 0, len(array) - 1)
6
7
8 def shiftedBinarySearchHelper(array, target, left, right):
9     if left > right:
10         return -1
11     middle = (left + right) // 2
12     potentialMatch = array[middle]
13     leftNum = array[left]
14     rightNum = array[right]
15     if target == potentialMatch:
16         return middle
17     elif leftNum <= potentialMatch:
18         if target < potentialMatch and target >= leftNum:
19             return shiftedBinarySearchHelper(array, target, left, middle - 1)
20         else:
21             return shiftedBinarySearchHelper(array, target, middle + 1, right)
22     else:
23         if target > potentialMatch and target <= rightNum:
24             return shiftedBinarySearchHelper(array, target, middle + 1, right)
25         else:
26             return shiftedBinarySearchHelper(array, target, left, middle - 1)
27
```