

PromptScratchpadOur Solution(s)Video Explanation

Run Code

Solution 1Solution 2

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 public class Program {
4     // O(log(n)) time | O(log(n)) space
5     public static int ShiftedBinarySearch(int[] array, int target) {
6         return ShiftedBinarySearch(array, target, 0, array.Length - 1);
7     }
8
9     public static int ShiftedBinarySearch(int[] array, int target, int left, int right) {
10         if (left > right) {
11             return -1;
12         }
13         int middle = (left + right) / 2;
14         int potentialMatch = array[middle];
15         int leftNum = array[left];
16         int rightNum = array[right];
17         if (target == potentialMatch) {
18             return middle;
19         } else if (leftNum <= potentialMatch) {
20             if (target < potentialMatch && target >= leftNum) {
21                 return ShiftedBinarySearch(array, target, left, middle - 1);
22             } else {
23                 return ShiftedBinarySearch(array, target, middle + 1, right);
24             }
25         } else {
26             if (target > potentialMatch && target <= rightNum) {
27                 return ShiftedBinarySearch(array, target, middle + 1, right);
28             } else {
29                 return ShiftedBinarySearch(array, target, left, middle - 1);
30             }
31         }
32     }
33 }
34
```