

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(1) 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        while (left <= right) {
11            int middle = (left + right) / 2;
12            int potentialMatch = array[middle];
13            int leftNum = array[left];
14            int rightNum = array[right];
15            if (target == potentialMatch) {
16                return middle;
17            } else if (leftNum <= potentialMatch) {
18                if (target < potentialMatch && target >= leftNum) {
19                    right = middle - 1;
20                } else {
21                    left = middle + 1;
22                }
23            } else {
24                if (target > potentialMatch && target <= rightNum) {
25                    left = middle + 1;
26                } else {
27                    right = middle - 1;
28                }
29            }
30        }
31        return -1;
32    }
33 }
34
```