

Our Solution(s)

Run Code

Your Solutions

Run Code

Solution 1Solution 2

```
1 # Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 # O(log(n)) time | O(1) 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     while left <= right:
10         middle = (left + right) // 2
11         potentialMatch = array[middle]
12         leftNum = array[left]
13         rightNum = array[right]
14         if target == potentialMatch:
15             return middle
16         elif leftNum <= potentialMatch:
17             if target < potentialMatch and target >= leftNum:
18                 right = middle - 1
19             else:
20                 left = middle + 1
21         else:
22             if target > potentialMatch and target <= rightNum:
23                 left = middle + 1
24             else:
25                 right = middle - 1
26     return -1
27
```

Solution 1Solution 2Solution 3

```
1 def shiftedBinarySearch(array, target):
2     # Write your code here.
3     pass
4
```

Our Tests

Custom Output

Submit Code

```
1 def test():
2     # Test cases
3
4     # Test case 1
5     array = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
6     target = 3
7     result = shiftedBinarySearch(array, target)
8     assert result == 2
```

```
1 # Custom output
2
3 # Submit code
```

```
10 def test_case_21(self):
11     self.assertEqual(sorted(self.find_duplicates(200, 1, 10, 20)),
12                        [10, 11, 12, 13, 14, 15, 16, 17, 18, 19])
13
14 def test_case_22(self):
15     self.assertEqual(sorted(self.find_duplicates(200, 20, 10, 10)),
16                        [10, 11, 12, 13, 14, 15, 16, 17, 18, 19])
17
18 def test_case_23(self):
19     self.assertEqual(sorted(self.find_duplicates(200, 40, 10, 10)),
20                        [10, 11, 12, 13, 14, 15, 16, 17, 18, 19])
21
22 def test_case_24(self):
23     self.assertEqual(sorted(self.find_duplicates(200, 70, 10, 10)),
24                        [10, 11, 12, 13, 14, 15, 16, 17, 18, 19])
25
26 def test_case_25(self):
27     self.assertEqual(sorted(self.find_duplicates(200, 100, 10, 10)),
28                        [10, 11, 12, 13, 14, 15, 16, 17, 18, 19])
```

Run or submit code when you're ready.