

1. 1184. Distance Between Bus Stops

We will get the distance from start to end and compare it with the other distance. Return the minimum one. TC is $O(n)$

class Solution:

```
def distanceBetweenBusStops(self, distance: List[int], start: int, destination: int) -> int:
    if start > destination:
        start, destination = destination, start
    one_sum = sum(distance[start:destination])
    return min(one_sum, sum(distance) - one_sum)
```

2. 1185. Day of the Week

We will use datetime to get the week day. TC is $O(1)$

import datetime

class Solution:

```
def dayOfTheWeek(self, day: int, month: int, year: int) -> str:
    weekdays = ["Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday", "Sunday"]
    return weekdays[datetime.date(year, month, day).weekday()]
```

3. 876. Middle of the Linked List

We will use two nodes, the slower one will move one node every step, and the fast one will move two nodes every step. We will repeat the previous progress until the fast one cannot move. TC is $O(n)$.

class Solution:

```
def middleNode(self, head: ListNode) -> ListNode:
    dummy = ListNode(0)
    dummy.next = head
    slow, fast = dummy, dummy
    while fast:
        slow = slow.next
        if not fast.next or not fast.next.next:
            return slow
        else:
            fast = fast.next.next
```

4. Check If a Number Is Majority Element in a Sorted Array

We will use binary search to get our starting index and ending index of our target number. Then compare their difference with our $\text{len} / 2$ and return the result. TC is $O(\log n)$

from bisect import *

class Solution:

```
def isMajorityElement(self, nums: List[int], target: int) -> bool:
    return bisect(nums, target) - bisect_left(nums, target) > len(nums) / 2
```

5. Increasing Order Search Tree

We will use in-order traverse to get all nodes we need. Then we will reconnect them one by one. TC is $O(n)$

class Solution:

```
def increasingBST(self, root: TreeNode) -> TreeNode:
```

```
    nodes = []
    self.traverse(root, nodes)
    dummy = TreeNode(0)
    dummy_mem = dummy
    for node in nodes:
        node.left = None
        dummy.right = node
        dummy = dummy.right
    dummy.right = None
    dummy.left = None
    return dummy_mem.right
```

```
def traverse(self, root, nodes):
```

```
    if not root:
        return None
    if root.left:
        self.traverse(root.left, nodes)
    nodes.append(root)
    if root.right:
        self.traverse(root.right, nodes)
```