

20 октября 2020 г.

1 Task №1

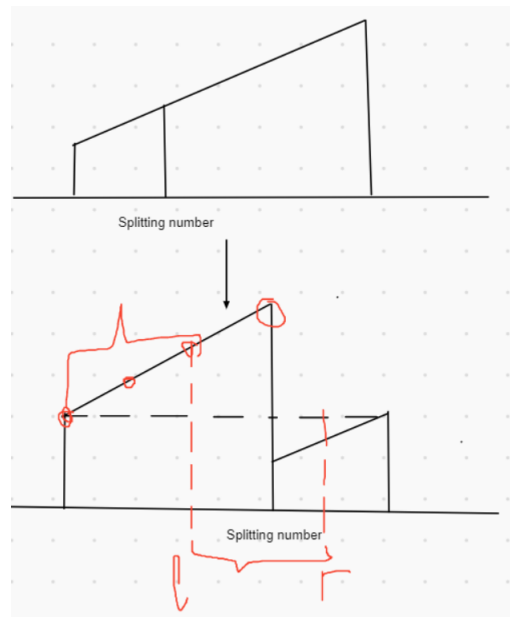


Рис. 1: General view of array rotation

Algorithm 1 Search($a[...]$ - array, p - searched element)

```
1: Fixing the first, last element
2: Take the middle element  $\lfloor n/2 \rfloor$ 
3: if  $a[mid] > a[last] \&\& p < a[first] \&\& p < a[last]$  then
4:   Search( $a[mid + 1:last]$ ,  $p$ )
5: else if  $a[mid] == p$  then
6:   return  $mid$ 
7: else
8:   Search( $a[first:mid-1]$ ,  $p$ )
9: end if
10: return -1
```

2 Task №2

Algorithm 2 Binary search tree to linked list Reconstruct(Node n)

```
1: Run from root node  $node$ 
2:  $answer = []$  is empty linked list
3: if  $node.left$  is not Null then
4:    $answer =$ 
5:   Reconstruct( $node.left$ )
6: end if
7:  $answer.pushBack(node.value)$ 
8: if  $node.right$  is not Null then
9:    $answer.append(Reconstruct(node.right))$ 
10: end if
11: return  $answer$ 
```
