Problem 1. Binary Search

Given an array of integers `nums` which is sorted in ascending order, and an integer target, write `binarySearchHelper` in `functions.cpp` to search target in `nums`. If `target` exists, then return its index. Also, print the pivot number at each step of the binary search process.

Otherwise, return -1.

Modify and submit `functions.cpp`. For tests, you can use `main.cpp`.

Compile command: `g++ -o main main.cpp functions.cpp -std=c++14`

Execution command: `./main "given array" target`

Example 1:

```
>> ./main "-3 0 3 5 9 12" 5
>> 3 9 5 3
>>
```

Example 2:

```
>> ./main "-3 0 3 5 9 12" 33
>> 3 9 12 -1
>>
```

Constraints:

```
1 <= nums.length <= 104
-104 < nums[i], target < 104
All the integers in nums are unique.
nums is sorted in ascending order.
```