Quiz 3 - Tuesday

5 points

Oct 22, 2024

Name:

Student Number:

You are given a **sorted** array of integers `nums` in ascending order and an integer target. Write a function to search for `target` in the array. If the `target` exists, return its index; otherwise, return `-1`. You **must** implement a binary search algorithm ($O(logn)$ time complexity).

Example 1:

- Input: `nums = [-2,0,3,7,12]`, `target = 7`
- Output: `3`
- Explanation: The number `7` is present in the array at index 3.

Example 2:

- Input: `nums = [-2,0,3,7,12]`, `target = 2`
- Output: `-1`
- Explanation: The number `2` is not present in the array, so the function returns `-1`.

IMPORTANT NOTES:

- Write the function in the following format:

```
int search(int* nums, int numsSize, int target) {

}
```

- All integers in `nums` are unique.
- The array `nums` is sorted in ascending order.
- No need to write `int main()`.
- Your code must work on any OS.