Quiz 2 - Monday

4 points (+0.5 bonus for an optimized solution)

Oct 7, 2024

Name:

Student Number:

Given an array of integers `numbers` that is already sorted in non-decreasing order, **return** `true` if there are two numbers such that they add up to a specific `target` number. If there is no combination of two values such that their sum equals the `target`, then **return** `false`. **You may not use the same element twice**.

Example 1:

Inputs to `twoSum()` function are: `numbers = [2,7,11,15]`, `target = 18`

Output: `true`

Explanation: The sum of 7 and 11 is 18.

Example 2:

Inputs to `twoSum()` function are: `numbers = [-3,-1]`, `target = -2`

Output: `false`

Explanation: There is not a set of two **different** numbers that their sum would be equal to -2.

Constraints:

- $2 \leq$ the length of array `numbers` $\leq 3 \times 10^4$
- `numbers` is sorted in non-decreasing order.
- The data type `int` (32-bits integer) is acceptable for both `numbers` and `target`.

IMPORTANT NOTES:

- Write the code for `twoSum()` and `int main()` testing the function with an example.
- Use a `printf()` within `int main()` to print the returned value from the function.
- Your code must work on any OS.