

# Problem 325: Maximum Size Subarray Sum Equals k

## Problem Information

**Difficulty:** Medium

**Acceptance Rate:** 50.71%

**Paid Only:** Yes

**Tags:** Array, Hash Table, Prefix Sum

## Problem Description

Given an integer array `nums` and an integer `k`, return the maximum length of a subarray that sums to `k`. If there is not one, return `0` instead.

**Example 1:**

**Input:** `nums = [1,-1,5,-2,3]`, `k = 3` **Output:** `4` **Explanation:** The subarray `[1, -1, 5, -2]` sums to 3 and is the longest.

**Example 2:**

**Input:** `nums = [-2,-1,2,1]`, `k = 1` **Output:** `2` **Explanation:** The subarray `[-1, 2]` sums to 1 and is the longest.

**Constraints:**

`1 <= nums.length <= 2 * 105`  
`-104 <= nums[i] <= 104`  
`-109 <= k <= 109`

## Code Snippets

**C++:**

```
class Solution {
public:
    int maxSubArrayLen(vector<int>& nums, int k) {
```

```
}  
};
```

### Java:

```
class Solution {  
    public int maxSubArrayLen(int[] nums, int k) {  
  
    }  
}
```

### Python3:

```
class Solution:  
    def maxSubArrayLen(self, nums: List[int], k: int) -> int:
```