

Problem 1800: Maximum Ascending Subarray Sum

Problem Information

Difficulty: **Easy**

Acceptance Rate: 0.00%

Paid Only: No

Problem Description

Given an array of positive integers

nums

, return the

maximum

possible sum of an

strictly increasing subarray

in

nums

.

A subarray is defined as a contiguous sequence of numbers in an array.

Example 1:

Input:

nums = [10,20,30,5,10,50]

Output:

65

Explanation:

[5,10,50] is the ascending subarray with the maximum sum of 65.

Example 2:

Input:

nums = [10,20,30,40,50]

Output:

150

Explanation:

[10,20,30,40,50] is the ascending subarray with the maximum sum of 150.

Example 3:

Input:

nums = [12,17,15,13,10,11,12]

Output:

33

Explanation:

[10,11,12] is the ascending subarray with the maximum sum of 33.

Constraints:

$1 \leq \text{nums.length} \leq 100$

$1 \leq \text{nums}[i] \leq 100$

Code Snippets

C++:

```
class Solution {  
public:  
    int maxAscendingSum(vector<int>& nums) {  
  
    }  
};
```

Java:

```
class Solution {  
public int maxAscendingSum(int[] nums) {  
  
}  
}
```

Python3:

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

Python:

```
class Solution(object):  
    def maxAscendingSum(self, nums):  
        """  
        :type nums: List[int]  
        :rtype: int  
        """
```

JavaScript:

```
/**  
 * @param {number[]} nums
```

```
* @return {number}
*/
var maxAscendingSum = function(nums) {
};

}
```

TypeScript:

```
function maxAscendingSum(nums: number[]): number {
};

}
```

C#:

```
public class Solution {
public int MaxAscendingSum(int[] nums) {
}

}
```

C:

```
int maxAscendingSum(int* nums, int numsSize) {
}
```

Go:

```
func maxAscendingSum(nums []int) int {
}
```

Kotlin:

```
class Solution {
fun maxAscendingSum(nums: IntArray): Int {
}

}
```

Swift:

```
class Solution {  
    func maxAscendingSum(_ nums: [Int]) -> Int {  
        }  
    }  
}
```

Rust:

```
impl Solution {  
    pub fn maxAscendingSum(nums: Vec<i32>) -> i32 {  
        }  
    }  
}
```

Ruby:

```
# @param {Integer[]} nums  
# @return {Integer}  
def maxAscendingSum(nums)  
  
end
```

PHP:

```
class Solution {  
  
    /**  
     * @param Integer[] $nums  
     * @return Integer  
     */  
    function maxAscendingSum($nums) {  
  
    }  
}
```

Dart:

```
class Solution {  
    int maxAscendingSum(List<int> nums) {  
        }  
    }
```

Scala:

```
object Solution {  
    def maxAscendingSum(nums: Array[Int]): Int = {  
  
    }  
}
```

Elixir:

```
defmodule Solution do  
  @spec maxAscendingSum(list) :: integer()  
  def maxAscendingSum(list) do  
  
  end  
end
```

Erlang:

```
-spec maxAscendingSum([integer()]) -> integer().  
maxAscendingSum(Nums) ->  
.
```

Racket:

```
(define/contract (max-ascending-sum nums)  
  (-> (listof exact-integer?) exact-integer?)  
)
```

Solutions

C++ Solution:

```
/*  
 * Problem: Maximum Ascending Subarray Sum  
 * Difficulty: Easy  
 * Tags: array  
 *  
 * Approach: Use two pointers or sliding window technique  
 * Time Complexity: O(n) or O(n log n)  
 * Space Complexity: O(1) to O(n) depending on approach  
 */
```

```
class Solution {  
public:  
    int maxAscendingSum(vector<int>& nums) {  
  
    }  
};
```

Java Solution:

```
/**  
 * Problem: Maximum Ascending Subarray Sum  
 * Difficulty: Easy  
 * Tags: array  
 *  
 * Approach: Use two pointers or sliding window technique  
 * Time Complexity: O(n) or O(n log n)  
 * Space Complexity: O(1) to O(n) depending on approach  
 */  
  
class Solution {  
public int maxAscendingSum(int[] nums) {  
  
}  
}
```

Python3 Solution:

```
"""  
Problem: Maximum Ascending Subarray Sum  
Difficulty: Easy  
Tags: array  
  
Approach: Use two pointers or sliding window technique  
Time Complexity: O(n) or O(n log n)  
Space Complexity: O(1) to O(n) depending on approach  
"""  
  
class Solution:  
    def maxAscendingSum(self, nums: List[int]) -> int:  
        # TODO: Implement optimized solution
```

```
pass
```

Python Solution:

```
class Solution(object):
    def maxAscendingSum(self, nums):
        """
        :type nums: List[int]
        :rtype: int
        """

```

JavaScript Solution:

```
/**
 * Problem: Maximum Ascending Subarray Sum
 * Difficulty: Easy
 * Tags: array
 *
 * Approach: Use two pointers or sliding window technique
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(1) to O(n) depending on approach
 */

/**
 * @param {number[]} nums
 * @return {number}
 */
var maxAscendingSum = function(nums) {

};


```

TypeScript Solution:

```
/**
 * Problem: Maximum Ascending Subarray Sum
 * Difficulty: Easy
 * Tags: array
 *
 * Approach: Use two pointers or sliding window technique
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(1) to O(n) depending on approach

```

```
*/\n\nfunction maxAscendingSum(nums: number[]): number {\n};
```

C# Solution:

```
/*\n * Problem: Maximum Ascending Subarray Sum\n * Difficulty: Easy\n * Tags: array\n *\n * Approach: Use two pointers or sliding window technique\n * Time Complexity: O(n) or O(n log n)\n * Space Complexity: O(1) to O(n) depending on approach\n */\n\npublic class Solution {\n    public int MaxAscendingSum(int[] nums) {\n\n    }\n}
```

C Solution:

```
/*\n * Problem: Maximum Ascending Subarray Sum\n * Difficulty: Easy\n * Tags: array\n *\n * Approach: Use two pointers or sliding window technique\n * Time Complexity: O(n) or O(n log n)\n * Space Complexity: O(1) to O(n) depending on approach\n */\n\nint maxAscendingSum(int* nums, int numsSize) {\n\n}
```

Go Solution:

```

// Problem: Maximum Ascending Subarray Sum
// Difficulty: Easy
// Tags: array
//
// Approach: Use two pointers or sliding window technique
// Time Complexity: O(n) or O(n log n)
// Space Complexity: O(1) to O(n) depending on approach

func maxAscendingSum(nums []int) int {
}

```

Kotlin Solution:

```

class Solution {
    fun maxAscendingSum(nums: IntArray): Int {
        }
    }

```

Swift Solution:

```

class Solution {
    func maxAscendingSum(_ nums: [Int]) -> Int {
        }
    }

```

Rust Solution:

```

// Problem: Maximum Ascending Subarray Sum
// Difficulty: Easy
// Tags: array
//
// Approach: Use two pointers or sliding window technique
// Time Complexity: O(n) or O(n log n)
// Space Complexity: O(1) to O(n) depending on approach

impl Solution {
    pub fn maxAscendingSum(nums: Vec<i32>) -> i32 {
    }
}

```

```
}
```

Ruby Solution:

```
# @param {Integer[]} nums
# @return {Integer}
def maxAscendingSum(nums)

end
```

PHP Solution:

```
class Solution {

    /**
     * @param Integer[] $nums
     * @return Integer
     */
    function maxAscendingSum($nums) {

    }
}
```

Dart Solution:

```
class Solution {
int maxAscendingSum(List<int> nums) {

}
```

Scala Solution:

```
object Solution {
def maxAscendingSum(nums: Array[Int]): Int = {

}
```

Elixir Solution:

```
defmodule Solution do
@spec maxAscendingSum(nums :: [integer]) :: integer
def maxAscendingSum(nums) do

end
end
```

Erlang Solution:

```
-spec maxAscendingSum(Nums :: [integer()]) -> integer().
maxAscendingSum(Nums) ->
.
```

Racket Solution:

```
(define/contract (max-ascending-sum nums)
(-> (listof exact-integer?) exact-integer?))
```