5. Given an integer array nums, find the subarray with the largest sum, and return its sum.

Input: nums = [-2,1,-3,4,-1,2,1,-5,4]

Output: 6

Explanation: The subarray [4,-1,2,1] has the largest sum 6.

```
def max_subarray_sum(nums):
    if not nums:
        return 0
    current_max = global_max = nums[0]
    for num in nums[1:]:
        current_max = max(num, current_max + num)
        global_max = max(global_max, current_max)
    return global_max
nums = [-2, 1, -3, 4, -1, 2, 1, -5, 4]
print(max_subarray_sum(nums))
```

INPUT:

-2,1,-3,4,-1,2,1,-5,4

TIME COMPLEXITY:

O(n)

OUTPUT: