

68) MAXIMUM SUBARRAY

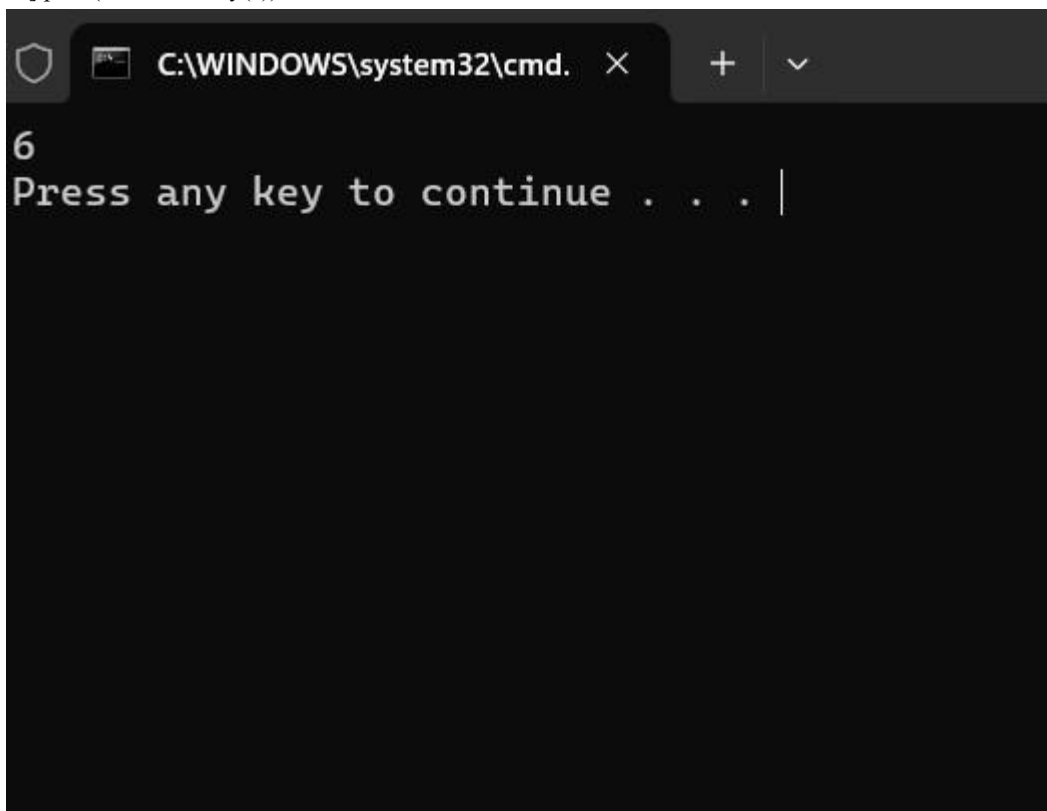
Given an integer array `nums`, find the subarray which has the largest sum and return *its sum*.

CODE:

```
def maxSubArray(nums):    if
not nums:                return 0

    max_current = max_global = nums[0]
    for i in range(1, len(nums)):
        max_current = max(nums[i], max_current + nums[i])    if max_current >
max_global:            max_global = max_current

    return max_global a=[-2,1,-3,4,-1,2,1,-
5,4] print(maxSubArray(a)) OUTPUT:
```

A screenshot of a Windows Command Prompt window. The title bar shows the path 'C:\WINDOWS\system32\cmd.' and standard window controls. The command prompt displays the number '6' on the first line, followed by the text 'Press any key to continue . . . |' on the second line, with a vertical cursor at the end.

TIME COMPLEXITY : $O(n)$