```c
int maxSubArray(int* nums, int numsSize) {
    int index;
    int max_sum;
    int current_max_sum;


    max_sum = nums[0];
    current_max_sum = nums[0];

    for(index = 1; index < numsSize; index++)
    {
        if(nums[index] > current_max_sum + nums[index])
        {
            current_max_sum = nums[index];
        }else
        {
            current_max_sum += nums[index];
        }

        if(current_max_sum > max_sum)
        {
            max_sum = current_max_sum;
        }
    }

    return max_sum;
}
```