



源代码如下：

```
#include<iostream>
#include<vector>
using namespace std;

struct subSums {
    int lSum, rSum, mSum, iSum;
};

class Solution {
private:
    subSums update(subSums left, subSums right) {
        subSums res;
        res.iSum = left.iSum + right.iSum;
        res.lSum = max(left.lSum, left.iSum + right.lSum);
        res.rSum = max(right.rSum, right.iSum + left.rSum);
        res.mSum = max(max(left.mSum, right.mSum), left.rSum +
right.lSum);
        return res;
    }

    subSums get(vector<int>& arr, const int left, const int right) {
        subSums res;
        if (left == right) {
            res.lSum = arr[left];
            res.rSum = arr[left];
            res.mSum = arr[left];
            res.iSum = arr[left];
            return res;
        }
        int mid = (left + right) / 2;
        subSums leftSub=get(arr, left, mid);
        subSums rightSub=get(arr, mid + 1, right);
        return update(leftSub, rightSub);
    }
};
```

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public:
    int maxSubArray(vector<int>& nums) {
        int s = nums.size() - 1;
        subSums ans = get(nums, 0, s);
        return ans.mSum;
    }

};

int main()
{
    Solution test;
    vector<int>arr = { -2,1,-3,4,-1,2,1,-5,4 };
    cout << "The max sum of sub string is: " << test.maxSubArray(arr) <<
endl;
    return 0;
}
```