

## 53. Maximum Subarray

Easy.

Array, Divide and Conquer, Dynamic Programming.

Given an integer array `nums`, find the contiguous subarray (containing at least one number) which has the largest sum and return its sum.

Example:

```
Input: [-2,1,-3,4,-1,2,1,-5,4],
Output: 6
Explanation: [4,-1,2,1] has the largest sum = 6.
```

Follow up:

If you have figured out the  $O(n)$  solution, try coding another solution using the divide and conquer approach, which is more subtle.

### 解法一

暴力搜索。可以用双循环进行不断的判断，当前数字是否应该相加。

复杂度 $O(n^2)$

Java

```
class Solution {
    public int maxSubArray(int[] nums) {
        int len = nums.length;
        if(len==1) return nums[0];
        int max = Integer.MIN_VALUE;
        for(int i=0; i<len;i++){
            int tmp = nums[i];
            max=Math.max(tmp,max);
            for(int j=i+1;j<len;j++){
                tmp+=nums[j];
                max=Math.max(tmp,max);
            }
        }
    }
}
```

```
    }  
  }  
  return max;  
}  
}
```