- **MEDIUM**
- **Max Score: 40 Points**
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# Maximum Contiguous Subarray Sum

Given an array, A of length n.

Your task is to find the contiguous subarray within A which has the largest sum.

## Input Format

The first line of each test case contains an integer n, the length of the array A.

The next line contains n integers.

## Output Format

Output an integer representing the maximum possible sum of the contiguous subarray.

## Example 1

Input

5

```
1 2 3 4 -10
```

Output

```
10
```

Explanation

1 + 2 + 3 + 4 = 10

# Example 2

Input

```
6
2 -1 0 1 2 1
```

Output

```
5
```

Explanation

The sum of the entire array i.e 5.

# Constraints

**1 <= N <= 10^5**

**-10^6 <= A[i] <= 10^6**

- **Arrays**

# My code

```java
// n java
import java.util.*;
import java.lang.*;
import java.io.*;

public class Main
{
    public static void main (String[] args) throws
java.lang.Exception
    {
        //your code here
    Scanner s=new Scanner(System.in);

    int n=s.nextInt();
    int arr[]=new int[n];
    for(int i=0;i<n;i++)
     arr[i]=s.nextInt();
     int max=arr[0];
     for(int i=0;i<n;i++){
       int sum=arr[i];
       if(max<sum) max=sum;
     for(int j=i+1;j<n;j++)
      {
        sum+=arr[j];
        if(max<sum) max=sum;
      }
     }
```

```java
        System.out.print(max);

    }
}
```