

Java Code

```
1  import java.util.*;
2  class Main
3  {
4      static long maxCrossingSum(long[] arr,int left,int mid,int right)
5      {
6          long sum=0;
7          long leftMax=Long.MIN_VALUE;
8          for (int i=mid;i>=left;i--)
9          {
10             sum=sum+arr[i];
11             leftMax = Math.max(leftMax, sum);
12         }
13         sum = 0;
14         long rightMax=Long.MIN_VALUE;
15         for(int i=mid+1;i<=right; i++)
16         {
17             sum += arr[i];
18             rightMax = Math.max(rightMax, sum);
19         }
20         return leftMax + rightMax;
21     }
22     static long maxSubarraySum(long[] arr,int left,int right)
23     {
24         if (left == right)
25         {
26             return arr[left];
27         }
28         int mid = (left + right) / 2;
29         long leftSum = maxSubarraySum(arr, left, mid);
30         long rightSum = maxSubarraySum(arr, mid + 1, right);
31         long crossSum = maxCrossingSum(arr, left, mid, right);
32         return Math.max(Math.max(leftSum, rightSum), crossSum);
33     }
34     public static void main(String[] args)
35     {
36         Scanner sc = new Scanner(System.in);
37         int T=sc.nextInt();
38         while (T-- > 0) {
39             int N=sc.nextInt();
40             long[] arr = new long[N];
41             for (int i=0;i<N;i++)
42             {
43                 arr[i] = sc.nextLong();
44             }
45             System.out.println(maxSubarraySum(arr, 0, N - 1));
46         }
47         sc.close();
48     }
49 }
50
```