Problem H. Profits S

Time limit 1000 ms
Mem limit 128000 kB

Description

The cows have opened a new business, and Farmer John wants to see how well they are doing. The business has been running for N (1 <= N <= 100,000) days, and every day i the cows recorded their net profit P_i (-1,000 <= P_i <= 1,000).

Farmer John wants to find the largest total profit that the cows have made during any consecutive time period. (Note that a consecutive time period can range in length from one day through N days.) Help him by writing a program to calculate the largest sum of consecutive profits.

奶牛们开始了新的生意，它们的主人约翰想知道它们到底能做得多好。这笔生意已经做了N（1≤N≤100,000）天，每天奶牛们都会记录下这一天的利润Pi（-1,000≤Pi≤1,000）。

约翰想要找到奶牛们在连续的时间期间所获得的最大的总利润。（注：连续时间的周期长度范围从第一天到第N天）。

请你写一个计算最大利润的程序来帮助他。

Input

* Line 1: A single integer: N

* Lines 2...N+1: Line i+1 contains a single integer: P_i

Output

* Line 1: A single integer representing the value of the maximum sum of profits for any consecutive time period.

Sample 1

Input	Output
7 -3 4 9 -2 -5 8 -3	14

Hint

The maximum sum is obtained by taking the sum from the second through the sixth number (4, 9, -2, -5, 8) => 14.

感谢@smartzzh 提供的翻译。