Problem_AJ

Vangelis the bear has taken a liking to snowboarding and decided to go to the snowy mountains of Nowy Sacz to try. Being an amateur, he cannot control his speed. He just slides down the hill hoping to cross the finishing line with as much speed as possible.

The hill is composed of N smaller parts and the slope of each part is represented by an integer. In case the number is positive, for example 5, it means this part is a downhill and Vangelis will gain an additional speed of 5. Likiwise, if the number is negative, for example -5, it means this part is an uphill and Vangelis' speed will be reduced by 5. If the value is 0, then that part is flat and Vangelis' speed will not be affected.

Vangelis can choose any part of the hill as his starting point. His initial speed is always 0.

Write a program that calculates the maximum speed Vangelis can achieve while crossing the finishing line. In case Vangelis starts from the finish line, his final speed will be 0.

Input Data

The first line contains the number N (where $2 \leq N \leq 2.000.000$) which represents the number of parts the hill is composed of.

The second line contains N integers separated by an empty character. The absolute value of all numbers is less or equal to 2000.
The finish line is always after the last part to the right. Vangelis must always cross the finish line.

Output Data

The output is composed of one line. That line contains exactly one integer that denotes the maximum speed Vangelis can achieve while crossing the finish line.

Sample Input 1:

```
9
4 16 -22 14 12 -11 9 -5 4
```

Sample Output 1:

```
23
```

Sample Input 2:

```
5
2 3 2 3 -20
```

Sample Output 2:

```
0
```

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