

Problem AE. Hotels Along the Croatian Coast

Time limit 1000 ms
Mem limit 1572864 kB
Code length Limit 50000 B
OS Linux

There are N hotels along the beautiful Adriatic coast. Each hotel has its value in Euros.

Sroljo has won M Euros on the lottery. Now he wants to buy a sequence of consecutive hotels, such that the sum of the values of these consecutive hotels is as great as possible – but not greater than M .

You are to calculate this greatest possible total value.

Input

In the first line of the input there are integers N and M ($1 \leq N \leq 300\,000$, $1 \leq M < 2^{31}$).

In the next line there are N natural numbers less than 10^6 , representing the hotel values in the order they lie along the coast.

Output

Print the required number (it will be greater than 0 in all of the test data).

Example

input 5 12 2 1 3 4 5 output 12	input 4 9 7 3 5 6 output 8
--	--