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A. Antony's Training

time limit per test: 2 s.

memory limit per test: 256 MB

Antony is a soccer player who is never picked for the first team by his coach. The coach picks first team players based off training performances. On the i-th day of training, the coach rates Antony's training performance as t_i ($|t_i| \leq 10^9$).

Now, Antony has trained for n days and he believes the coach will pick him for the first team if he is in good *form*. Antony calculates his *form* as the number of ranges $[l, r]$ ($l \leq r$) such that $t_l + t_{l+1} + \cdots + t_{r-1} + t_r < s$, where s is his favorite number. Help Antony calculate his *form*.

Input

The first line contains two integers n and s ($1 \leq n \leq 200\,000, |s| \leq 2 \cdot 10^{14}$) — the number of days Antony trained and his favorite number.

The second line contains a sequence of integers $t_1, t_2, \ldots, t_n$ ($|t_i| \leq 10^9$) — the ratings Antony got from his coach.

Output

Print the value of Antony's *form*.

Examples

input
5 4
5 -1 3 4 -1

output
5

input
3 0
-1 2 -3

output
4

input
4 -1
-2 1 -2 3

output
3

Note

In the first sample test case, the following $[l, r]$ ranges have sum less than 4:

- $[2, 2]$, sum of training ratings is -1
- $[2, 3]$, sum of training ratings is 2
- $[3, 3]$, sum of training ratings is 3
- $[4, 5]$, sum of training ratings is 3
- $[5, 5]$, sum of training ratings is -1