Balloons

SEASON 8 – SIXTH ROUND

Milen is a clown and so he loves balloons. There is a festival coming that will be held during **N** consecutive **evenings**. As the tickets have already been sold, Milen knows the number of kids that will come for each **evening** of the festival – for **i-th** evening there will be **a[i]** kids. It is also known that every child will want **exactly one balloon**.

Initially Milen has 0 balloons, but every **day of the festival** (before the corresponding evening) he can blow up exactly **K** new balloons or train his blowing speed and increas **K** by one 1.

In other words, every **day** he can do **exactly one** of the following operations:

- **K := K + 1**
- Blow up **K** balloons. These balloons will also stay for the next evenings.

After doing one of the two operations, he **must** give balloons to **a[i]** children.

As balloons make Milen extremely happy, he wants to find the **maximal number of balloons** he can end up with **after the festival ends**. Write a program that computes this value. It is guaranteed that he will be able to give a balloon to every child.

Input

The first line of the input file balloons`.in` contains the numbers **N** and **K.** The second line contains **N** numbers representing how many children will come for every evening – **a[1], a[2], ..., a[N]**.

Output

The output file balloons`.out` must contain one number – the maximal number of balloons Milen can end up with after the festival.

Constraints

1 ≤ N ≤ 200 000
1 ≤ K, a[i] ≤ 10^9

Time limit: 1 sec
Ограничение за памет: 256 MB

Example test:

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Input (balloons.in)	Output (balloons.out)
5 10 1 1 8 7 1	32