E. Cashback

time limit per test: 2 seconds memory limit per test: 256 megabytes

input: standard input output: standard output

Since you are the best Wraith King, Nizhniy Magazin «Mir» at the centre of Vinnytsia is offering you a discount.

You are given an array a of length n and an integer c.

The value of some array b of length k is the sum of its elements except for the smallest. For example, the value of the array [3, 1, 6, 5, 2] with c = 2 is 3 + 6 + 5 = 14.

Among all possible partitions of a into contiguous subarrays output the smallest possible sum of the values of these subarrays.

Input

The first line contains integers n and c ($1 \le n, c \le 100\ 000$).

The second line contains *n* integers a_i ($1 \le a_i \le 10^9$) — elements of *a*.

Output

Output a single integer — the smallest possible sum of values of these subarrays of some partition of a.

Examples

```
input
3 5
1 2 3

output
6
```

```
input

12 10
1 1 10 10 10 10 10 10 10 10 10

output

92
```

```
input
7 2
2 3 6 4 5 7 1

output
17
```

```
input

8 4
1 3 4 5 5 3 4 1

output

23
```

Note

In the first example any partition yields 6 as the sum.

In the second example one of the optimal partitions is [1, 1], [10, 10, 10, 10, 10, 10, 10, 10, 10, 10] with the values 2 and 90 respectively.

In the third example one of the optimal partitions is [2,3], [6,4,5,7], [1] with the values 3, 13 and 1 respectively.

In the fourth example one of the optimal partitions is [1], [3, 4, 5, 5, 3, 4], [1] with the values 1, 21 and 1 respectively.