

Maximum Window Sum

time limit per test: 2 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

points: 100 · problem code: maxwindowsum · author: jbroeksteeg

Given an array a of length n and an integer k , find the maximum possible sum of a contiguous subarray of length exactly k .

Remember that a subarray is a contiguous section of the array.

Input

The first line contains two integers n and k .

The second line contains n integers $a_1, a_2, \dots, a_n$.

Output

Print a single integer: the maximum sum of any contiguous subarray of length exactly k .

Constraints

- $1 \leq k \leq n \leq 10^5$
- $-10^3 \leq a_i \leq 10^3$

Example 1

Input

```
5 3
1 -2 3 -4 5
```

Output

```
4
```

Explanation

The length-3 subarrays have sums 2, -3 , and 4, so the answer is 4.

Example 2

Input

```
8 3
-512 750 27 -532 -940 781 -449 278
```

Output

```
610
```