

Task 1

The Largest Sum

Task

You are given a sequence of n integers a_1, a_2, \dots, a_n and a positive integer k ($1 \leq k \leq n$). Write a program which calculates the maximum of the sum of k consecutive integers $S_i = a_i + a_{i+1} + \dots + a_{i+k-1}$ ($1 \leq i \leq n - k + 1$).

Input

The input file is named `input.txt`.

The first line contains two space-separated positive integers n ($1 \leq n \leq 100000$) and k ($1 \leq k \leq n$) in this order. The $(1 + i)$ -th line ($1 \leq i \leq n$) contains a_i ($-10000 \leq a_i \leq 10000$), which is the i -th term of the sequence.

Among the data used for evaluation, 60% of the mark is given for test cases satisfying $n \leq 5000$, $k \leq 1000$.

Output

The output file is named `output.txt`.

The file should consist of one line, and the line should contain only the maximum of S_i .

Sample inputs and outputs

`input.txt`

```
5 3
2
5
-4
10
3
```

`output.txt`

```
11
```