**Утегенов Батырхан Елембетұлы [ADS-Lab-03]: Submit a solution**

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## Submit a solution for B-Oshiete oshiete yo sono shikumi wo

**Time limit:**        1 s
**Real time limit:**   5 s
**Memory limit:**      256M

## Problem B: Oshiete oshiete yo sono shikumi wo

There is only one road and $n$ houses in the Tokyo, and all the houses are on this road. House numbered from $1$ to $n$ and appear in this order. There a $a_i$ ghouls living in the $i-th$ house. Due to the RC-cells infection, a $k-1$ roadblock needs to be installed between houses in Tokyo, so that $k$ blocks houses are detached. Kaneki Ken wants to divide ghouls so that the maximum number of ghouls over blocks (consecutive houses detached roadblocks) is minimal. Help Kaneki find this number.

**Subtasks**
1. $(20\%)$ $n \leq 100$
2. $(30\%)$ $n \leq 1000$
3. $(50\%)$ other tests

## Input format

The first line contains integers $n$ and $k$ ($1 \leq k \leq n \leq 10^5$). The second line contains the elements of the array $a_i$ ($1 \leq a_i \leq 10^9$).

## Output format

Print one number - the minimum possible maximum number of ghouls on the section of the roadblock.

## Examples

Input

```
10 3
3 4 2 1 3 4 5 2 2 3
```

Output

```
12
```

Input

```
10 4
3 1 2 4 10 8 4 2 5 3
```

Output

```
12
```

Input

```
2 1
399265 867718
```

Output

```
1266983
```

## Notes

In the first example: (3+4+2+1), (3+4+5), (2+2+3)

## Submit a solution

Language: [ g++ - GNU C++ 11.4.0 ▼ ]

File　　　　[ Choose File ] No file chosen

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## Previous submissions of this problem

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|--------|------|------|---------|----------|--------|-------------|-------------|-------------|
| 5260 | 893:19:27 | 708 | B | g++ | OK | N/A | View | View |

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