

Subarray Up To K

time limit per test: 2 seconds
memory limit per test: 488.3 megabytes
input: standard input
output: standard output

points: 1 · problem code: subarrayuptok · author: jszqlw

Problem Statement

Given an array a of n integers $a_1, a_2, \dots, a_n$, as well as an integer k , determine the sum of the subarray which has a sum which is **less than or equal** to k . There will always be a subarray with a sum of 0. If there is no subarray with sum less than or equal to k then output -1 .

Remember that a subarray is a selection of continuous elements of a .

Input Format

Your first line will contain two space-separated integers n and k . Your next line will contain n space-separated integers $a_1, \dots, a_n$.

Output Format

You should output the largest subarray sum less than or equal to k . If there is no subarray with sum less than or equal to k then output -1 .

Constraints

- $1 \leq n \leq 10^5$
- $-10^9 \leq a_i \leq 10^9$
- $-10^9 \leq k \leq 10^9$

Sample Cases

Input 1

```
6 13
100 -4 2 7 2 5
```

Output 1

```
12
```

Explanation 2

The subarray with sum of 12 is $[-4, 2, 7, 2, 5]$.

Input 2

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

Output 2

```
5
```

Explanation 2

The subarray with sum of 5 is $[5]$.