

Mirana and Arrows

Problem Statement

In the world of Mirana's fantastic adventures, the brave archer found herself facing a great challenge. She has N arrows, each of which has a defined distance it can fly. Mirana is skilled with the bow and has extensive shooting experience, but she needs to know the maximum number of arrows she can release to avoid peril.

Mirana can start releasing arrows from any index and take the next arrow from the list. She starts from the chosen index j and shoots arrow j to the distance A_j . After that, when the arrow reaches its target, she takes the next arrow with index $j + 1$ and shoots it to the distance A_{j+1} , and so on until the last arrow with index N . However, Mirana cannot take the next arrow until the current one reaches its target.

However, there is a limitation: if the total distance the arrows fly exceeds K , Mirana will perish. Your task is to find the maximum number of arrows Mirana can release without risking her life.

Inputs

The first line contains two integers N and K , where N is the number of arrows and K is the maximum cumulative distance the arrows can fly. The next line contains N integers A_i representing the distances the arrows can fly.

Outputs

A single integer - the answer to the problem, the maximum number of arrows Mirana can release to avoid peril.

Constraints

$$1 \leq N \leq 10^5$$

$$1 \leq K \leq 10^9$$

$$1 \leq \|A_i\| \leq 10^9$$

Samples

Input	Output
3 3 1 2 3	2
5 7 5 4 2 2 3	3