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## Winnable Game

Input file:            **standard input**  
Output file:         **standard output**  
Time limit:          2 seconds  
Memory limit:       256 megabytes

Fares and Omar are best friends , one day they got bored so they invented a new game , the new games consists of  $n + 2$  points , the first point is  $x = 0$  and the  $(n + 2)$ 'th point is  $x = n + 1$  , the points from 1 to  $n$  each contains one number  $a_i$ . Omar starts at  $x = 0$  and fares starts at  $x = n + 1$  . At each step , omar can move from point  $x$  to  $x + 1$  or fares can move from point  $x$  to  $x - 1$  (they can't both move at the same step).

Let's suppose  $f(l, r) = a[l + 1] + \dots + a[r - 1]$  .

Let's suppose after some steps , omar is at position  $l$  and fares is at position  $r$  , they can win the game at this state only if  $f(l, r) \leq k$  ( $k$  is fixed at the begining of the game)

Given the numbers written in the points from 1 to  $n$  and the number  $k$  , determine the minimum number of steps needed to win the game .

### Input

The first line contains two integers  $n$  and  $k$  ( $1 \leq n \leq 1000000$  ,  $1 \leq k \leq 10000000$ ).

The second line contains  $n$  integers  $a_i$  ( $1 \leq a_i \leq k$ ) the numbers written in the points 1 to  $n$  .

### Output

Print one integer the minmum number of steps to win the game .

### Examples

standard input	standard output
5 10 1 3 1 2 1	0
5 10 1 3 10 2 1	3