Question:

Tiles Game

Alice and Bob are playing a Tiles Game, In this game there are N tiles which are placed from left to right on the floor where each tile have written on them ‘L’ or ‘R’ and also a number is written which shows the maximum number of step jumps one can take from that tile. If ‘L’ is written on a tile one can take step jump in only left direction and if if ‘R’ is written on the tile we can only move to the Right direction from that tile to another tile. For example: if current tile is of “L” and corresponding number written on that tile is 5, one can take step jump to tiles in only left direction and the number of step jump can be 1, 2, 3, 4 or 5 from the current position only one at a time.
Similarly if current tile is of “R” and number is 3, one can take step jump of 1, 2, 3 from the current position to other tile in the right direction and only one at a time.

Given the condition that one can jump on the same tile twice and can do as many jumps as he need to reach the final position. Note that if at certain tile number written is “0”- It means he can’t move further from that tile and there is no way to reach destination from there.

Alice challenged Bob to reach the final position N+1 from the current first position 1 of the given tiles. Bob is very lazy and does not want to jump far. So you need to find a way such that the maximum step jump he need to take is as small as possible to reach the destination.

You have to return the maximum step jump he took to reach the final position or
“-1” in case he can not reach destination following any path.

Input Specification:

input1: An integer N (The number of Tiles)
input2 : String (Tiles String consisting of L and R)
input3 : Array of Integers(An Integer array consisting of numbers written on N tiles)

Output Specification:

Output: return Integer(Maximum step jump he took OR ‘-1’ in case there is no way)

Examples:

Example 1:

input1: 6
input2: RLRRLR
input3: 2 1 2 2 1 1

Output: 2

Explanation:

Currently Bob is at position 1 and can move maximum 2 towards right.

One of the possible ways to reach destination is take two jump step from position 1 and then take one step from position 3 and then two jump step from position 4 and finally 1 jump step from position 6 to reach destination, Here the maximum jump step is 2 , So, the output is 2.

Example 2:

input1: 7
input2: RRLRRLR
input3: 4 100 1 2 0 4 1

output: 5

Explanation: One possible way such that Bob get jump step of 5 is -
Bob can take four jump step from position 1 and and then 2 jump step from position 4 and then take 4 jump step from position 6 and then 5 jump step from position 2 and finally 1 jump step from position 7.

Here maximum jump step taken is 5.