

06-Stack Stabilization

Wednesday, September 29, 2021 10:22 PM

$R: [2, 5, 3, 6, 5]$
 $\downarrow \quad \downarrow \quad \downarrow$
 1 2 4

Constraints

$$R_i < i \quad R_i \geq i+1$$

$$R_i < R_{i+1}$$

if $R_i > i$, reduce to $R_{i-1} + 1$?

if $R_i \geq R_{i+1}$, "

How to cascade?

$[2, 5, 3, 6, 5]$

↪

$[2, 3, 3, 4, 5]$

[2, 3, 3, 4, 5]

↳ [1, 2, 3, 4, 5]

IDEA 2

Work backwards

[2, 5, 3, 6, 5]

↑ - $R_i > i$ or early return -1

- $R_i < R_{i+1}$ or $R_i = R_{i+1} - 1$

↑
↳ Stop for $i = R.length - 1$

↑ $6 < 5$ fails, decrease to $5 - 1 = 4$

↑ $3 < 4$

↑ $5 < 3 \therefore 2$

↑ $2 < 2 \therefore 1$

Answer 3

$O(n)$