shelf

1
2
3
4

book idx

$$\begin{bmatrix} 3 \\ 2 \\ 1 \\ 0 \end{bmatrix} \implies \begin{matrix} 0 \\ 1 \\ 2 \\ 3 \end{matrix}$$

When flipping a book, we have to all the books on top of it together.

Visited = [S0, S2, S3, S5]

When recording the flip sequence, use the book shelf level idx

Flipping seq

S0
$$\begin{bmatrix} 3 \\ 2 \\ 1 \\ 0 \end{bmatrix}$$
[ ]

if s in visited

$$\begin{bmatrix} 3 \\ 2 \\ 1 \\ 0 \end{bmatrix}$$

[1]

S2
$$\begin{bmatrix} 2 \\ 3 \\ 1 \\ 0 \end{bmatrix}$$

S3
$$\begin{bmatrix} 1 \\ 2 \\ 3 \\ 0 \end{bmatrix}$$
[2]

[3]

$$\begin{bmatrix} 3 \\ 2 \\ 1 \\ 0 \end{bmatrix}$$
[2,1]

S4
$$\begin{bmatrix} 0 \\ 1 \\ 2 \\ 3 \end{bmatrix}$$
[4]

S5
$$\begin{bmatrix} 3 \\ 2 \\ 1 \\ 0 \end{bmatrix}$$
[2,2]

$$\begin{bmatrix} 1 \\ 3 \\ 2 \\ 0 \end{bmatrix}$$
[2,3]