

946. Validate Stack Sequences

Given two sequences `pushed` and `popped` with distinct values, return `true` if and only if this could have been the result of a sequence of push and pop operations on an initially empty stack.

Example 1:

Input: `pushed = [1,2,3,4,5]`, `popped = [4,5,3,2,1]`

Output: `true`

Explanation: We might do the following sequence:

`push(1)`, `push(2)`, `push(3)`, `push(4)`, `pop()` -> 4,

`push(5)`, `pop()` -> 5, `pop()` -> 3, `pop()` -> 2, `pop()` -> 1

Example 2:

Input: `pushed = [1,2,3,4,5]`, `popped = [4,3,5,1,2]`

Output: `false`

Explanation: 1 cannot be popped before 2.

Constraints:

- `0 <= pushed.length == popped.length <= 1000`
- `0 <= pushed[i], popped[i] < 1000`
- `pushed` is a permutation of `popped`.
- `pushed` and `popped` have distinct values.

```
def validateStackSequences(self, pushed: List[int], popped: List[int]) -> bool:
    n = len(pushed)
    stack = []
    j = 0
    for x in pushed:
        stack.append(x)
        while stack and j < len(popped) and stack[-1] == popped[j]:
            stack.pop()
            j = j + 1
    return j == len(popped)
```