Online on Stack + Queue

Section: B1+B2   Time: 30 minutes

Problem: Check if the Queue is a Palindrome using a Stack

Given a queue of integers, determine whether the queue forms a palindrome using only one auxiliary stack (and the queue itself). Implement the following function:

- **bool isPalindrome(Queue* q):** Checks if a queue is palindrome

At the end of the function, the original order of the queue should be preserved.

Write a main function to test the function.

Note: You are not allowed to access or modify the internal representation (e.g., underlying list/array). You must only use the standard operations provided by the Stack and Queue.

Examples:
q = 1 2 3 2 1 → Palindrome
q = 1 2 3 4 5 → Not Palindrome
q = 1 2 3 3 2 1 → Palindrome