For this lab, please implement your solution to this problem in the palindrome.cpp starter file and upload to Gradescope. This is to prepare you for the structure of the final exam, which will involve online code submissions. You do not need to submit this PDF file, and your code will still be graded on effort.

Lab 1 Handwritten Problem:Palindrome [5 Points]

Given the start and end nodes of a doubly linked list, determine if the values create a palindrome. A palindrome is a sequence that is the same backwards and forwards. Each Node has a prev, next, and value (see palindrome.h). Return true if the list is a palindrome.

Implementation: Your solution should run in O(1) space and O(n) time.

bool isPalindrome(Node* start, Node* end);