

Homework Assignment #6

Due: November 14, 2012

For this assignment, you can describe the algorithms you construct in pseudocode, but it should be done in enough detail that it is clear how to implement your algorithms on a Turing machine using logarithmic space.

1. Show that PALINDROMES is in **L**.
2. The STRONGLY-CONNECTED problem is defined as follows.
Input: A directed graph G .
Question: Is it true that for *all* pairs of distinct nodes s and t in G , there is a path from s to t ?
Show that STRONGLY-CONNECTED is in **NL**.