

Illinois Institute of Technology
Department of Computer Science

Homework Assignment 9

CS 430 Introduction to Algorithms
Spring Semester, 2017

Due: Monday, April 24

1. Use the widget on page 4 of Professor Reingold's graph coloring slides to prove that 3-coloring a *planar* graph is NP-complete. Remember, to prove NP-completeness you must prove NP-hardness *and* that the problem is in the class NP.
2. Exercise 34.5-7 on page 1101 in CLRS3.