The University of Newcastle
School of Information and Physical Sciences

COMP2230/COMP6230 Algorithms

Tutorial 10
7 - 8 October 2021

Tutorial

1. Prove that the graph 3-clolourability is NP-complete.

More Exercises

2. Show that determining whether a graph G has a vertex cover of size at most k is NP-complete.

3. Show that determining whether a graph G has a clique of size at least k is NP-complete.

4. Show that if any NP-complete problem is not in P, then no NP-complete problem is in P.

5. Find a planar graph not containing a triangle that needs at least 3 colours in a colouring.