Exam Specifications
Graph Theory Unit

Math in Decision Making

February 7, 2016

General Information

The in-class examination for the *Graph Theory* unit will be administered on Thursday, February 11. As described in the syllabus, the exam will be split into two separate parts: a Foundational part, and an Advanced Part. These two parts will be done during a single class meeting.

Each of these parts will be marked on a "Proficient/Not Proficient" basis. The two parts will be considered independently.

Expectations for the Foundational Exam

To earn a mark of "Proficient," a student must demonstrate that they can do all of these things:

- Work with the concept of planarity: including deciding when a graph is planar and possibly redrawing a graph in a planar drawing
- Compute basic invariants for graphs accurately in simple cases: including vertices, edges, components, degree sequence, cycles, colorings, and the chromatic number.
- Decide if a graph is Eulerian and find an Eulerian cycle in the case that it is.

Expectations for the Advanced Exam

To earn a mark of "Proficient," a student must demonstrate competence with using our complete list of invariants to determine if a variety of graphs are the isomorphic or are not isomorphic.