CS 360 100P
NP-Completeness

Revision Date: January 10, 2013

Topics to learn

Please read up on the following subjects:

- The classes *P* and *NP*
- The class *NP*-complete
- *NP*-completeness proofs

Tasks to perform

Via a presentation, prove that a problem is *NP*-complete. Each problem must be unique (no other student in your class can prove the same problem is *NP*-complete).

Your proof must be formal, complete, and correct. The three parts to an NP-Completeness proof are:

1. show the problem is in NP
2. show how a problem instance of a known NP-complete problem can be transformed into an instance of your problem in polynomial time
3. show how the solution of the transformed problem can be transformed back into the solution of the known problem instance