Today: Space complexity; PSPACE completeness. §§8.1–8.3.
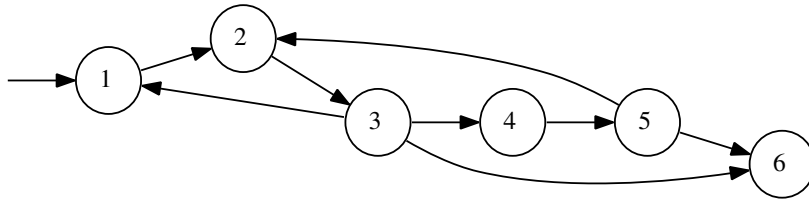**Next class:** Review. Midterm exam 2 on 2014-04-22.

1. List the members of your group below. Underline your name.

2. Prove or disprove each as best you can, where

$$ALL_{\mathrm{NFA}} = \{\langle A \rangle \mid A \text{ is an NFA and } L(A) = \Sigma^*\}$$

ALL_{NFA} is in (a) PSPACE, (b) PTIME, (c) NP, (d) coNP.

3. Determine which player has a willing strategy for the following instance of generalized geography (GG) and explain your answer.

4. Construct a GG instance that has a winning strategy for the first player and explain your answer. Repeat for an instance that has a winning strategy for the second player. Use instances of around 8–12 vertices.