Today NP-completeness. §§7.4–5.
Next class Quiz; more on NP-completeness.

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

2. Prove or disprove: $(x \lor y \lor \bar{z}) \land (\bar{x} \lor \bar{y} \lor z) \land (x \lor \bar{y} \lor z) \land (\bar{x} \lor \bar{y} \lor \bar{z})$ is satisfiable.

3. Use the polynomial time reduction from the proof of Theorem 7.32 to map the SAT instance of Question 2 to an instance of CLIQUE.

4. Reduce the SAT instance of Question 2 to a VERTEX-COVER instance using the reduction of Theorem 7.44.

5. Prove or disprove each: The class NP is closed under

   (a) complement.
   (b) union.
   (c) concatenation.