Today: NP-complete problems. §7.5.
Next class: Quiz 2. Mini-review.

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

2. Reduce the following SAT instance to a VERTEX-COVER instance using the reduction of Theorem 7.44: $(x \vee y \vee \bar{z}) \wedge (\bar{x} \vee \bar{y} \vee z) \wedge (x \vee \bar{y} \vee z) \wedge (\bar{x} \vee \bar{y} \vee \bar{z})$

   Are the instances satisfiable? If so, depict corresponding solutions; otherwise explain why they are not satisfiable.

3. Repeat Question 2 with a reduction to CLIQUE (Theorem 7.32).

4. Repeat Question 2 with a reduction to SUBSET-SUM (Theorem 7.56).

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

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