Today: NP-complete problems. §7.5.
Next class: Space complexity. Ch. 8.

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

2. Reduce the following 3SAT instance to an instance of HAMPATH by using the textbook’s method: 
   \((x \lor y \lor z) \land (\bar{x} \lor \bar{y} \lor z) \land (x \lor \bar{y} \lor z) \land (\bar{x} \lor \bar{y} \lor \bar{z})\)

   Is the 3SAT instance satisfiable? If so, depict corresponding solutions of the 3SAT and HAMPATH instances. Otherwise, explain why neither instance has a solution.
3. Provide a nondeterministic Turing machine for deciding the language \( L_d = \{ww \mid w \in \Sigma^*\} \). Briefly explain why it is correct.

4. Reduce to problem of determining whether the machine of Question 3 accepts a string \( x \) to SAT using the textbook’s method.