Assignment 7 is due at the start of class on **Monday, May 7**.

Instructions

Write the answers to the following exercises, in order. If you create a file containing your answers, print the file. Staple pages together, and include your name. Turn in your work in paper form at the start of class.

Exercises

1. Do exercise 10.2.1, on page 447. *Hint: SAT is a language.*

2. Do exercise 10.2.2 parts a, c, on page 447.

3. Do exercise 10.3.1, on page 458.

4. Do exercise 10.4.1, on pages 473–474. *Hint: Suppose that S is a set of nodes in a graph G. Let T be the set of nodes of G that are not in S. Construct the graph $\overline{G}$, a graph having the same nodes as G and an edge between a pair of nodes precisely if G does **not** have an edge between them. Now, if S is a k-clique in G, then what can you say about T, as a set of nodes in $\overline{G}$?*