Homework 5 – Due Thursday, April 4, 2012

Please refer to the course website for the full homework policy and options.

Reminders

- Your solutions are due in class. Late homework will not be accepted.

- Collaboration is permitted, but you must write the solutions by yourself without assistance, and be ready to explain them orally to a member of the course staff if asked. You must also identify your collaborators. Getting solutions from outside sources such as the Web or students not enrolled in the class is strictly forbidden.

- To facilitate grading, please write down your solution to each problem on a separate sheet of paper. Make sure to include all identifying information and your collaborators on each sheet.

- For problems that require you to provide an algorithm, you must give a precise description of the algorithm, together with a proof of correctness and an analysis of its running time. You may use algorithms from class as subroutines. You may also use any facts that we proved in class.

Problems to be handed in

1. (Independent sets) Chapter 6; Problem 1.

2. (Pretty printing) Chapter 6; Problem 6.

3. (Robot attacks) Chapter 6; Problem 8.

4. (k-shot strategies) Chapter 6; Problem 21.

5. (Gerrymandering) Chapter 6; Problem 24.

6. (Inventory management) Chapter 6; Problem 26.