Today: Analysis of algorithms, asymptotics, max. contiguous subseq. §§5.0–5.3.
Next class: Static search, alg. analysis. §§5.*.
Reminders: Read material *before and after* class. *Use the newsgroup.* Homework. Quiz.

1. Write your group members' names below. Underline your name.

2. Prove or disprove the following from first principles.

   (a) $\log n = O(n)$

   (b) $n^3 = o(2^n)$

3. Define *maximum contiguous subsequence (MCS).*

4. Prove or disprove: Every sequence has a unique MCS.

5. Trace the MCS computation for the sequence $(2, -3, 4, 2, -1, 3)$ using the $O(n^2)$ algorithm from the textbook. Prove the $O(n^2)$ claim. Is the algorithm $\Theta(n^2)$? Explain.

6. Repeat Question 5 for the $O(n)$ algorithm from the textbook.