

Today: Catch-up and review.

Next class: Midterm Exam 1 (in class).

Reminders: Homework. Newsgroup. Reading. Coding. Practice. Don't fall behind.

1. List the members of your group below. Underline your name.
2. Let $T(n)$ denote the running time of the method `churn` in the following Java code fragment, as a function of n . Express $T(n)$ as a recurrence equation and explain briefly why it is correct.

```
1     public static int churn(int n) {  
2         int s = 0;  
3         for(int i = 0; i < n/2; i++) s += i;  
4         if (n > 2) s += churn(n/3);  
5         return s;  
6     }
```

3. Solve the recurrence of Question 2 using the *recurrence tree* method.

4. Solve the recurrence of Question 2 using the *substitution* method.

5. Solve the recurrence of Question 2 using the *master theorem* method.