

Math s21 - Day Sixteen (Thursday, May 17, 2007)

9:00-10:20

- A. Students present problems from homework on the board.
- B. In groups, begin reading Section 7.5. Do Exercise 7.5.2, prove Theorem 7.5.5, and do Exercise 7.5.7. (Note: The proof of Theorem 7.5.6 [The Schroeder-Bernstein Theorem] is quite involved. If you finish the rest of Section 7.5, think about how you would approach this proof, and then begin to work through the steps.)

10:20-10:35 Break

10:35-11:30

- C. Groups present work from Section 7.5.
- D. Read Section 7.6 and prove Theorem 7.6.1.

11:30-11:55 To be announced

11:55-1:00 Lunch (Math Lunch!)

1:00-3:00

- E. Finish reading Section 7.6.
- F. Groups do practice problems (handout).
- G. Groups present solutions to practice problems on the board.

NEW KEY IDEAS TODAY

- card A is an equivalence class, " \leq " is an equivalence relation
- Schroeder-Bernstein Theorem
- $\text{card } \mathcal{P}(\mathbb{N}) = \text{card } \mathbb{R}$
- the continuum hypothesis

MAPLE ASSIGNMENT FOR THIS/NEXT WEEK

(First version due on Tuesday, May 22, at 1 p.m. Revision due on Thursday, May 24, at 9 a.m.)

- (1) Exercise 8 from the "Iteration and Recursion in Maple" handout.
- (2) Exercise 11 from the "Iteration and Recursion in Maple" handout.

HOMEWORK

- (1) Study for exam.
- (2) \LaTeX revision due Monday.
- (3) Maple assignment due Tuesday.
- (4) Get ready for Range Pond! (The excursion is planned for Monday, assuming the weather cooperates. Keep one eye on your email this weekend. Keep your other eye on the radar!)

SECTION TO DISCUSS NEXT CLASS MEETING

- 8.5