

## CS 520 FACTSHEET

**WEBPAGE**      <http://www.cs.wisc.edu/~shuchi/cs520.html>

Please check frequently for announcements.

**MAILING LIST**      [compsci520-1-s08@lists.wisc.edu](mailto:compsci520-1-s08@lists.wisc.edu)

---

**INSTRUCTOR**      **Shuchi Chawla (shuchi@cs)**

Off. hrs: T 11—noon, R 4—5, and by appt. in CS 4395

**TA**                      **Baris Aydinlioglu (baris@cs)**

Off. hrs: MF 4:30—5:30 in CS 1304

---

**LECTURES**              TR 9:30—10:45 in CS 1207

---

**TEXTBOOK &**              Michael Sipser, **Introduction to the Theory of Computation**

**REFERENCES**              List of references available on the class webpage; all books are on reserve in Wendt library

---

**PREREQUISITES**      Math 240, CS 367

---

**GRADING**              Homeworks: 10x5 = 50%

**BREAK-UP**              Midterm (3/12):      20%

Final (5/15):              30%

---

**HOMEWORKS**

- Five 2-week long homeworks
- Schedule on the class webpage
- Due promptly at the start of lecture on the due date
- You must solve and write-up your homework individually
- Any discussions or collaborations with fellow classmates must be cited

## HOMEWORK 0

(Note: You are not required to submit this homework. It will not be graded. It is for your practice only. We will hand out solutions in the next lecture.)

Let  $A \subset \{1, 2, \dots, 2n\}$  with  $|A| = n + 1$ . Prove that  $A$  contains two numbers one of which divides the other.

Hint: Break  $\{1, 2, \dots, 2n\}$  into a few sets such that for every two numbers in the same set, one of the numbers divides the other. (Try out some examples for small  $n$ .) How many sets do you get? Now use the pigeonhole principle.