

Name: \_\_\_\_\_

## Exercise 00, 1/18/05

Note: All take-home exercises are due at the beginning of the following class meeting (unless otherwise stated). For this exercise, the due date is 1/21/05, this coming Friday. At that time, submit this sheet with other required components.

Most of the take-home exercises in this course will be open-ended. This reflects the belief of the instructor that “important” real-world problems are often open-ended (in other words, problems with well-defined answers are not so important), and that students must practice facing such problems in regular courses as well as other opportunities such as research and internship. If you feel more comfortable with being able to present the “expected” answers to well-defined problems, these exercises will be opportunities to develop a different attitude to problems. Such an attitude would actually be more useful when you begin a career after graduation, be it in the industry or graduate work.

### Part 1: Your Own Problem(s)

Probably the best way to learn and appreciate the power of Theory of Computation is to apply it to computational problems that you care. In addition, it would be more effective if we discuss issues that you are familiar with and/or interested in. Thus, it is *extremely important* that you think and write about problems you know at this stage.

**Task:** Write an essay about one or more of your own problem(s) that can be solved computationally (i.e., using a computer or defining a computational process such as algorithm). Try to be reasonably detailed so that the reader can understand your problem(s) well. Optionally, you may want to analyze certain computational aspects (e.g., whether computable within a reasonable amount of time) as much as you can. Be flexible and creative. Look around and think carefully. In addition, be prepared to discuss your problem in class.

Instructions/Notes:

1. Word-process your essay and submit a hard copy at the designated time. ....
2. Include: basic course info, exercise ID (00 for this one), your name, and date. ....
3. Do not include a title page. ....
4. Try to be concise (no extraneous information) and clear (understandable by other college students). ....
5. Include page numbers, if more than one page. ....
6. No requirements on font selection/size, line space, margin, or the number of pages. Apply your common sense.

### Part 2: Course Preview

Just to make sure that you understand the course organization and content well, do all of the following things (sorry to be too prescriptive; you will have more flexibility as we go):

**Tasks:**

1. Read the syllabus.

- a. If you understand it *completely*, check the box at right. ....
  - b. If you have questions, check the box and *list them on the other side of this sheet*. ....
- 2. Read Module A Evaluation form.
  - a. If you understand the general idea about evaluation, check the box at right. ....
  - b. If you have questions, check the box and *list them on the other side of this sheet*. ....
- 3. Visit the course page and most of the links including the instructor's page for students. .... 
  - a. If you understand the "Course work" section of it, check the box at right. ....
  - b. If you have questions, check the box and *list them on the other side of this sheet*. ....
- 4. Log on to SOCS and set discussion board e-mail notification. ....

Survey: Time spent between classes for this course (this exercise, etc.): \_\_\_\_\_

// End