

Preparation sheet for the Final Exam

Problems on this Test will be based on the homework problems listed below.

Note 1: The notation, e.g., 2.1.3, means ‘Problem 3 of Sec. 2.1’.

Note 2: You should check the original homework assignment for Hints or Notes for any of the problems listed below with an asterisk (e.g., 3.2.1*). Some problems have more than one Hint or Note, so make sure to *find and use all of them*.

Note 3: A problem on the Test may combine concepts of two problems listed on this sheet, or it may use only part of the solution of a given homework problem.

Note 4: Assignments are listed in reverse chronological order (with one exception) because the most recent assignments will have higher weight in the total score. Therefore, I recommend that you begin your preparation following the order used in the list below.

When preparing for the Test, it will be beneficial for your performance if you **redo** the problems listed below, and also review the related examples in the notes and in the book. Please **note**: It will **not help you much** if you simply browse those problems **without actually doing them**.

If you can do a problem but are not confident that you can do it fast (as will be expected on the Test), you should redo it multiple times (taking breaks in between) until you *can* do it fast and with confidence. This is the same concept as that of doing multiple repetitions of a physical exercise to make your muscles master and remember it.

On this Test, use of calculators will be allowed.

You may also prepare and use one double-sided sheet with formulae.

1. **HW 27:** Do the entire assignment.
2. **HW 26:** ## 7.2{39, 40*, 41, 42*, 43, 44*, 71, 73}.
3. **HW 24:** ## 9.3{69*, 71*, 72*}, and both Word Problems* on Pollution remediation.
4. **HW 22:** ## 9.2.{18*, 19*, 26*, 27, 37*}.

In all of these problems, you will need to “remove” the absolute value symbol. For that, you will need to investigate the sign of the expression inside the absolute value. Do so using the method illustrated in topic 2 (pp. 11-2,3) in Example 3 of Lecture 11, and in the Appendix for that Lecture. A significant part of the score for this problem will be assigned to your work on this step.

5. **HW 11:** ## 11.1.{9, 14*, 15, 21, 22*}.
6. **HW 16:** ## 11.4.{65*, 66*}.
7. **HW 13:** ## 11.2.{19, 29, 33*}.

When sketching the cumulative distribution function (CDiF), focus on its values on the left and on the right of the interval where it is changing. Review Properties and Examples of CDiF in topic 5 of Lecture 7.

8. **HW 6:** ## 5.5.{76*, 75*}, Word Problem*.