Instructions

Submit solutions to the required problems below (p. 2) to the `Problem Set 3` slot on D2L by 11:59 pm on Friday, February 2. No late work will be accepted, and no work will be accepted via email. Please format your solutions as follows; submissions that do not follow these guidelines will receive a score of 0.

1. Submit only a single pdf to D2L. Use a scanning app (such as CamScanner) or a pdf editor (such as `combinepdf.com`) to assemble your work.

2. Scans should be legible and clearly lit; photographs of work that include background material (your desk, your legs) are unacceptable.

3. Submit problems in the order that they are assigned, clearly number your problems, and distinguish between successive problems, e.g., by drawing a line across your page to indicate a break between problems or starting new problems on new pages.

4. Check that you have submitted the correct assignment to the correct D2L slot by downloading your submission and making sure that you can open the resulting pdf and that all pages open in the correct orientation (portrait, not upside-down).

You should strive for (at least!) the level of detail and "polish" in my solutions to examples in the lecture notes. Here are two tests for sufficient "detail" in your solutions.

Test for detail 1. *If you return to these solutions sometime in the future (say, while studying for an exam), you should be able to understand your former work completely with minimal effort from the future you.*

Test for detail 2. *If you show these solutions to a classmate who has paid attention in class up to the time of the assignment but not attempted the assignment, that classmate would also be able to understand your work completely with minimal effort from them.*

Additional recommended problems are listed on p. 3. Solving these problems is essential for your long-term mastery of course material and may also help with short-term difficulties on the required problems.

Required Problems to Submit to D2L

- Section 1.4 in the lecture notes: Problem 1.4.17
- Section 1.5 in the textbook: 12, 23
- Section 1.6 in the textbook (not the lecture notes): 2
- Section 1.6 in the lecture notes (not the textbook): Problem 1.6.3, Problem 1.6.15, Problem 1.6.16
- Section 1.3 in the textbook: 10 [*Hint: it turns out that* $\arctan([1-\sqrt{3}]/[1+\sqrt{3}]) = -\pi/12$*, a fact that you should feel free to use without proof. It may also be helpful to think about how to calculate the polar form of a quotient* z/w *from the polar forms of* z *and* w*.*]

Recommended Problems for Extra Practice

- All (!)- and ($\star$)-problems in the lecture notes up to now.
- Section 1.3 in the textbook: 5, 9, 25
- Section 1.5 in the textbook: 13, 17, 21, 25, 29, 33, 37, 41
- Section 1.6 in the textbook: 1, 5, 9, 13, 28 (this is a great exam-type problem)
- Section 1.7 in the textbook: 1, 29