MA 571: Homework # 1 due Monday August 31.

Please read Sections 12–16 (but in Section 13 you can skip Lemma 13.3 and Example 4, and in Section 16 you can stop reading at the end of Example 1).

Please do:
    p. 20 # 1(ab), 2(g)
    p. 83 # 3, 5, 8(b)
    p. 91 # 1, 4, 6, 9

Guidelines for Homework

- Do not look for homework solutions on the internet. The purpose of the homework problems is to help strengthen your problem-solving skills. If you get stuck, I'll be happy to give you a hint.

- Always use paragraph-style proofs, like those in the text or in class. Give all necessary details (if you're unsure whether a certain detail is necessary, ask me). For "if and only if" proofs, one direction will sometimes be "obvious," but you should still give at least one step.

- You may not use facts from other textbooks or from other courses you have taken (unless you give the proofs).

- You may use the set-theory facts in Chapter 1 (the list in Problems 2 and 3 on pages 20–21 is especially useful). If you need a set-theory fact that isn't in Chapter 1 you must **prove** it.

- You may use facts from previously assigned homework problems (including previous problems on the same assignment, even ones you couldn't do) without reproving them. You may not use facts from unassigned homework problems (except in Chapter 1) unless you prove them.

- You may use any fact stated in the text (even if Munkres doesn't give a proof). Be careful to make it clear what fact you're using and where it is in the text.

- If you don't know how to do a problem, don't fake it. Come and see me for a hint instead.