

Due Date: Each written assignment has a due date; the assignment should be turned in at *the beginning of class* on that day. Homework turned in after the first ten minutes of class will get a 5% deduction for lateness, and homework turned in after class will not be accepted except in extraordinary circumstances and (except for emergencies) with advance permission.

Collaboration: I strongly encourage you to work on the homework problems—both individual assignments and group assignments—with other students. For *individual assignments*, once you’ve worked out with your study group how to do the problems, *you must write your own solutions in your own words*. It is not acceptable for one person to write down the solution and others to copy it. If you turn in a solution that is a verbatim or near-verbatim copy of someone else’s solution to the same problem, you’ll get no credit for that whole assignment.

Identification: Make sure the first page of each homework packet is clearly labeled with your name, your student number, the course number (Math 444 or 445) and the assignment due date. Group assignments should include the group number and the names of all people who participated. Put your name or group number on every page, in case the pages become separated.

Staple: Staple all the pages of your assignment together.

In order: Arrange your solutions in the order the problems were listed on the assignment, with each problem clearly labeled. Problems that are out of order might not get credit.

Legible: Write your answers neatly and legibly, not too small, with as few erasures or crossouts as possible. Be sure to distinguish clearly between similar symbols, such as $\ell/e/1$, $s/5$, $t/+$, x/\times , $y/4$, $z/2$, \in/ε , \subset/C , \cup/U , and uppercase/lowercase letters. Unless mathematical ideas spring fully and impeccably realized from your pen, *your first draft is not acceptable*.

White space: Leave one-inch margins on all four sides of your pages, and leave at least two blank lines between consecutive problems. Don’t be stingy with white space.

Identify answers: For any homework problem that asks for a specific answer (such as an angle or an area), make sure your answer is clearly identifiable.

Proofs: For any homework problem that asks you to “prove” or “show” something (both words mean the same thing), write a complete, rigorous mathematical proof, with due attention to the standard conventions of mathematical writing that will be explained later in the course. At the beginning of each solution, please state clearly what you’re going to prove in the form of a theorem (*not a verbatim transcription of the problem statement*). Show clearly where your proof begins and ends. For example, if the problem says “Prove that $|a|^2 = a^2$ for every real number a ,” then your solution might look like this:

Theorem: If a is any real number, then $|a|^2 = a^2$.

Proof: There are two possible cases: either $a \geq 0$ or $a < 0$. If $a \geq 0$, then by definition $|a| = a$, and thus $|a|^2 = a^2$. If $a < 0$, then $|a| = -a$, and so we conclude that $|a|^2 = (-a)^2 = a^2$ by substitution. \square

Diagrams: The axiomatic method that you will be learning precludes relying on a diagram to justify steps of a proof. Even so, in geometry, diagrams are often indispensable to help the reader understand what is going on. Be sure to include diagrams with your proofs if they are needed for clarity. If the grader cannot follow your proof without drawing his or her own diagram, you might lose points.

Proofread: Don’t forget to read over what you’ve written before handing it in. You’ll be amazed how many silly mistakes you can catch that way.

Word processing vs. writing by hand: I welcome computer-typeset submissions from those who are comfortable producing mathematical homework assignments by computer. If you do use a computer, please print out your solutions and turn in paper copies.

Because typesetting formulas by computer takes specialized software and a lot of practice, I don’t insist that you use the computer. I’m happy to accept handwritten assignments, as long as they are *neat and legible*, and all mathematical symbols and formulas are clearly decipherable.

For those who decide they’d like to typeset their homework assignments, I’ve posted a link to some mathematical typesetting resources on the course web page.