

Homework may be typed or handwritten. Either way, it's due at the start of class on January 16th. If you type your homework, it is preferred that you print it out and physically hand it in. However, if you're unable to print it out you may email a PDF (*not* a Word document!) to your grader at yc75@uw.edu before the start of class.

The homework problems are from Sundstrom's *Mathematical Reasoning*, available here:
<https://scholarworks.gvsu.edu/books/9/>

Throughout the course, you should imagine that you are writing your proofs so that they can be understood by someone who is also taking Math 300 at the same time. For the problems from Chapters 2.3 and 2.4, your solutions should be informal explanations. For the proofs using the axioms handout, you should write two-column proofs.

For this assignment, please solve:

- Chapter 2.3, pages 61-62, problems 5bd and 6.
- Chapter 2.4, pages 74-78, problems 3bdf, 4, 5, and 8.
- Write a two-column proof of each of the following statements. You may use any of the axioms on the [Axioms handout](#) or any theorems proven in class.
 1. For every real number a , $0a = 0$.
 2. For every real number a , $(-1)a = -a$.
 3. For all real numbers a and b , $(-a)(-b) = ab$.

For extra practice, I recommend completing the progress checks in chapters 2.3, 2.4, and 3.1. (Don't hand in the progress checks. Just think about the problems on your own. You can look up solutions in the back of the book.)