

# Week 2 Assignment: Write Up a Theorem

Due Tuesday, February 6

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## Goals of the assignment

1. Practice writing exposition and explanations of mathematics
2. Get more experience with  $\text{\LaTeX}$ .

## Assignment

Choose a theorem you like from a 300-level class you either have taken or are taking. You will write a clear statement of the theorem, including defining terms and explaining notation; you will also give a short explanation of why this theorem is interesting or important. You should:

1. Have a title for the paper, and your name, with the `\maketitle` command
2. 1-2 paragraphs of “motivation”. Explain why this theorem is interesting and convince your reader to care. This can involve pretty much all the same hooks I discussed in my talk on talks today—applications to math, applications to the real world, history, fun stories, a pretty picture, or something else.
3. Statements of any definitions you will need in order to state your theorem cleanly. Use a definition environment, which will be `\begin{dfn}` and `\end{dfn}` if you’re borrowing my code and preamble.
4. A clear statement of the theorem. Use a theorem environment, which will be `\begin{thm}` and `\end{thm}` if you’re using my code and preamble.