

# MATH 110B—WRITING ASSIGNMENT 09

Due: Sunday November 24, by 7PM

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## Getting Started

1. Get the template for this assignment. Here's how to do it:

- Go to <https://v2.overleaf.com/>, and **make sure you are logged in**.
- In a new window, go here:

<https://www.overleaf.com/read/frdyymgnfbvv>

- Click on the menu icon in the upper-left and select “Copy Project”
- When ask for a name, choose something like “Math 110B - WA 09” and click “Copy”
- When this completes you will be back in your own workspace (instead of mine).
- After solving the problem(s), type them up using the template.
- Email me your final draft.

2. Let me know if you have any questions!

If you have trouble finding the command for a math symbol you want to use, try looking in this document:

<http://mirror.hmc.edu/ctan/info/short-math-guide/short-math-guide.pdf>

Please type up your proofs to the following problems in L<sup>A</sup>T<sub>E</sub>X. Take care to use complete sentences and appropriate punctuation, and make sure to edit for typos. Email me your final draft. *Please let me know if you have any questions!*

1. Let  $m, n \in \mathbb{Z}$  with  $2 \leq m < n$ . If  $p, q \in \mathbb{Z}$  are prime, then  $\sqrt[n]{p} \notin \mathbb{Q}(\sqrt[m]{q})$ .  
(This is Theorem 6.50.)

- *Make sure to clearly state when you are using a definition, lemma, theorem, corollary, or fact from the notes.*