

MATH 110A—WRITING ASSIGNMENT 09

Due: Sunday April 14, by 7PM

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://v2.overleaf.com/read/yhdmkwbykwhx>

- Click on the menu icon in the upper-left and select “Copy Project”
- When asked for a name, choose something like “Math 110A - WA 08” 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 each of the following problems in L^AT_EX. Make sure to use complete sentences and appropriate punctuation. Also, make sure to edit for typos. Email me your final draft.

And please email me if you have any questions!

1. If H is a subgroup of \mathbb{Z} , then $H = n\mathbb{Z}$ for some $n \in \mathbb{Z}$.
(See Corollary 4.44.)
2. Suppose G is a cyclic group of finite order n with generator g . Then $\langle g \rangle = \langle g^k \rangle$ if and only if $\gcd(n, k) = 1$.
(See Corollary 4.48.)