Abstract Algebra II: Homework 0

Due on January 27, 2021

Professor Walton

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PRACTICE PROBLEMS

PROBLEM 1

Claim. What is your first name?

Proof. Gabriel ☐

PROBLEM 2

Claim. What name would you like to be referred?

Proof. Gabe ☐

PROBLEM 3

Claim. What are your preferred pronouns?

Proof. He/him ☐

PROBLEM 4

Claim. What is your major?

Proof. I am pursuing a B.S. in MATH ☐

ADVANCED PROBLEMS

PROBLEM 5

Claim. Why are you interested in MATH 357?

Proof. From a pragmatic standpoint:
My interests primarily lie in analysis and PDEs, the latter of which often utilizes aspects of abstract algebra such as Lie groups or semigroups. I also believe in having a strong foundation.

From a personal standpoint:
Abstract algebra is super fun and I love writing the proofs for it! I also find the history of Galois theory super fascinating, and so I look forward to learning the kinds of things that Galois jumpstarted. ☐

Problem 6

Claim. What are your goals for the course and for the semester?

Proof. For the course:
My goals are to build a foundation solid enough that I can comfortably utilize the core concepts (modules, finite fields) when they pop up in other fields of mathematics. I also want to succeed (i.e. get an A) and generally have fun interacting with you and my peers.

For the semester:
I am faced with a particularly heavy semester (this course + algebraic topology + differential geometry + topics in PDEs), and so I will be working crazy hard to stay on top of my work. I also have mental health concerns I am working very hard this semester to address, so overall my main goals are to maintain motivation and personal health. □

Problem 7

Claim. Please share a fun fact about yourself.

Proof. I am super passionate about film and board games. Do you have a favorite movie or a movie you would recommend? □