

Here are some reflective exercises. Write responses (in the whereabouts of 200 words) for each of the following, and then submit through Gradescope.

**Question 1** (Persistence). Take one problem you worked on this block that you struggled to understand and solve, and explain how the struggle itself was valuable. In the context of this question, describe the struggle and how you overcame it. Did you have a “Eureka!” moment, and if so, what seemed to bring it about? You might also discuss whether struggling built aspects of character in you (eg, endurance, self-confidence, competence to solve new problems). How might these virtues benefit you in later ventures?

**Question 2** (Mathematical Beauty). Consider one mathematical idea from the course that you have found beautiful, and explain why it is beautiful to you. Your answer should: (1) explain the idea in a way that could be understood by a classmate who has taken math classes up through abstract algebra 1 but has not yet taken this class, and (2) address how this beauty is similar to or different from other kinds of beauty that human beings encounter.

**Question 3** (Creativity). Give one example of a mathematical idea from this class that you found creative, and explain what you find creative about it. For example, you can choose an instance of creativity you experienced in your own problem-solving, or something you witnessed in another person’s reasoning. You might also reflect on the similarities and differences between “mathematical creativity” and “mathematical beauty.”