
Final: Summing It Up

Below are some prompts to help you discuss some key ideas from the semester. Pick **three** to write about. Be **specific** and provide **attribution** (from class discussions, readings, videos) for your ideas, where appropriate.

1. **Problem-Solving:** What kind of mindset is helpful for problem-solving? (Describe at least two features of a helpful problem-solving mindset.) What are helpful problem-solving strategies? (State at least three things a person can try when working on solving a problem.) Describe one or two moments this semester when you needed to change your mindset or change your strategy (or both) in order to solve a problem.
2. **Math in Daily Life:** Describe two or three moments during the semester when you were able to apply mathematical reasoning to gain insight into situations and/or solve problems in your daily life. For each situation or problem, describe the situation/problem, and explain how you used mathematical concepts and reasoning to help you understand the situation or solve the problem.
3. **Flourishing:** “The skills society needs from math may change, but the virtues needed from math will not” (Su, 11). What “virtues” (strengths) does math cultivate, in the mind, in the heart, in the imagination? Have you seen yourself grow in any of these virtues this semester? How would you like to grow in these virtues in the future?
4. **Meaning:** “Mathematical ideas ... grow richer in meaning the more you play with them—each understanding brings a slightly different perspective—so that when you look at an idea in just the right way, you feel enlightened” (Su, 38). Choose one or two mathematical ideas that you “played with” this semester and which “grew richer in meaning” as you did so. Describe what you did to “play with” the idea(s), and describe how you grew in your understanding and appreciation of the idea(s) and their significance.
5. **Critical Thinking and Decision Making:** How is mathematical thinking helpful for personal and group decision-making? Be specific and give examples.
6. **The Breadth of Mathematics:** How have you grown in your appreciation for the “breadth” of mathematics this semester? (How have you come to see that there are more kinds of math than you previously thought?) Be specific in describing the new kinds of math that you learned about. Does this expanded view of math have an impact on how you think about math and what it is good for?
7. **The Dynamic Nature of Mathematics:** How have you grown in your appreciation of the dynamic nature of mathematics this semester? (By “dynamic nature of mathematics,” I mean the fact that math is not a set-in-stone collection of ideas but rather a developing subject driven by curious, creative, and persistent people.) Be specific in describing what you read, heard, or did that helped you see math as dynamic.
8. **Beauty:** Describe a moment this semester when you caught a glimpse of the beauty of mathematics. What were you watching, reading, or doing at the time? What struck you as beautiful about it?
9. **Propose a Reflection:** If you have an idea for an end-of-semester reflection prompt that is not on this list, you may propose your idea to me (one week before the portfolio is due), and I will let you know if it is a suitable reflection prompt.