

For your integrative essay, write 4–5 pages answering the following bolded questions, referencing both historical sources from this semester and your personal experience as a math student. Note that the non-bolded questions are intended to give ideas for approaching each bolded question and not meant to limit your response to the main question.

Upload a .pdf printout of your essay to the Integration Paper page in your student folder on OneNote by the beginning of our final period on Tuesday, May 4 at 10:30 AM.

Grading: This essay is 15% of your course grade. To earn a B, your essay should give a coherent and thoughtful answer to the questions which references resources you have read, including at least some from this course, and draws on your personal experience. College-level writing and citations are expected. An A is earned if in addition you do some of the following: have a strong thesis that is well-supported, draw on resources from outside of class, clearly integrate your ideas about your math major with other interests and studies, demonstrate a good grasp of mathematical history, or creatively present your ideas.

Suggestion: Picking one or two main points to develop and discuss in depth with multiple supporting examples is likely to give a more coherent and reflective essay than trying to rapidly write train-of-thought reactions to the sub-questions below.

- **What is the nature of mathematics?** What are the major areas of study of mathematics? How can you tell if something is mathematics or not? Is content or process more important? Is math discovered or invented? Has the nature changed over time? What is the purpose of mathematics as a discipline? What are the historical perspectives on this question? How has understanding of the nature of mathematics changed over time?
- **How does mathematics grow and develop?** What processes are used? Does the process depend on the content? Who is involved and what do they do? Has the process changed over time? In what ways has mathematics grown and developed throughout history?
- **How can mathematics and the Christian faith inform and enrich each other?** How does studying mathematics affect your understanding of the Christian faith? How does the Christian faith affect your understanding of mathematics? What is the purpose of studying mathematics as a Christian? In what ways (if any) might Christians approach mathematics differently than non-Christians? What did mathematicians throughout history think about this question? Is there overlap in content or process? Does one affect the other, and if so, how?