

Guidelines for Paper 1

MA 111 Spring 2009

The subject of your paper is to be: “Symmetry and Asymmetry in culture, nature, and mathematics.” The purpose is to summarize the role of symmetry and asymmetry in both nature and culture and to discuss how mathematics contributes to an understanding of both symmetry and asymmetry. You should give examples of both symmetry and asymmetry and discuss the aesthetic and functional role of each. You should give only the briefest overview of a mathematical view of symmetry and apply it to a few of your examples. You may also want to discuss strengths and weaknesses of a mathematical approach to symmetry: How does it help us understand symmetry? How does it limit our understanding?

This is neither a research paper nor a personal essay, although you may (and perhaps should) express opinions. The writing style should be formal, without being stilted, and should be free from serious grammatical and typographical errors. Your work should synthesize the readings from Gardner and Weyl and the class lectures. You do not need to refer to other works. You should cite your sources (including sources for images). This paper should reflect **your** understanding of the material we have covered; significant similarity between your paper and another’s will be cause for concern and may be considered academic dishonesty.

The paper should be typed and should include your name and section number. The paper should be between 3 and 4 pages and should certainly not exceed 5 pages. You should use 1 ½ line spacing and reasonable font and margins. If you wish to include figures, you may draw them in by hand. Images and figures do not count towards the page limit. You may also draw mathematical symbols by hand. If you wish to submit the paper by email (before the due date) you should email a **PDF** copy to sataylor@colby.edu . I cannot read .docx files. **If you send a docx file I will not read it.** Be sure to read through your paper after converting to PDF to be sure that all symbols, images, and figures have been included.