

IDS 101-19: Living Mathematics

Fall 2008

Paper #2

Paper topic option 1: Mathematical talent. What is mathematical talent, and where does it come from? Are some people inherently better at mathematics, and if so why? In what way are people who are more talented in mathematics different from everyone else?

Paper topic option 2: Mathematical existence. To what extent do mathematical objects exist in the world? Do mathematicians invent new mathematical ideas or discover them? Do mathematical theorems exist independent of whether mathematicians state them or prove them? Can a mathematical statement be absolutely true, or are mathematical statements constructed socially?

Paper topic option 3: Proof. If there does exist absolute truth, what does it mean to prove a mathematical statement? How do we know that a proof is definitively correct? What tools are we allowed to use to prove a theorem, and what tools can we use to measure when a theorem has been conclusively proven? Is there such a thing as absolute proof, or are mathematical statements proved socially?

Articulate an opinion in response to one or more of these questions, based on reasoned arguments and evidence from the class readings.

An excellent paper should include: All the items in our “features of good academic papers” list developed in class.

What’s due when:

1. An argument in support of your thesis to discuss in class Thursday October 9.
2. At least one meeting with Alicia sometime between now and October 30. You are encouraged, but not required, to meet with her twice: once for your first draft, and once for your final draft. Please make your appointment several days in advance.
3. A first draft of your paper, 1100–1400 words, Thursday October 16. Bring 3 hard copies of your draft to class and e-mail me an electronic copy.
4. A final draft of your paper, 1100–1400 words, Thursday October 30. Bring 1 hard copy to class and e-mail me an electronic copy.