

- **Assignment and due date** Write an essay about some mathematical topic connected with Math 403. The essay is due on Wednesday, April 30 (our next-to-last official meeting).
- **Length** One to three pages (use the max only if you have lots and lots to tell me about).
- **Style** Discuss your chosen topic in complete English sentences, weaving in any necessary mathematical notation and ideas.
- **Grading** The essay will be worth 50 points, and will be judged both on mathematical content and on exposition.
- **Topic** Compare and contrast real and complex calculus. You have freedom within this general phrasing to write about You may write about any aspect of this topic, and please choose your title appropriately. Use your imagination! Here are some possible titles:

Algorithms of calculus which behave the same in \mathbb{R} and \mathbb{C}

Unbelievable results of complex calculus which fail for \mathbb{R}

Integral evaluation in several real variables interpreted for the complex case

The utility of power series – when they do and do not work!

Inverse trig functions – how many silly values of \arctan are there?

The many faces of the exponential function

Isolation in \mathbb{R} and \mathbb{C}