



Cornell University
K-12 Education and Outreach, Mathematics Department

MATH 5080
Mathematics for Secondary School Teachers

November 16, 2013
9:00 am – 2:30 pm (lunch provided)
406 Malott Hall

8:45 – 9:00 am **Bagels & Juice (provided)**

9:00 – 9:15 am **Introductions**

9:15 – 11:00 am **Meet the Octonions!**

Octonions (O) is an 8-dimensional algebraic number system. In this talk we will learn about its history, including a famous act of mathematical vandalism. We will do algebra and arithmetic with Octonions and learn about their special properties.

Speaker: Quincy Loney

11:00 – 2:15 pm (break for lunch) **Statistics: Fact and Fiction**

Many of our math courses now include greater a emphasis on statistics. That's a good thing in this modern data-driven age. But starting from the traditional worlds of algebra and geometry, stats is off the beaten path, mathematically. Let's explore a bit. Some topics are new, while others that may seem familiar contain surprises.

- Mean, median, and mode you say? Not so fast!
- Just what IS a standard deviation, and why do we care?
- How are state tests & many texts often wrong about correlation & regression?
- What do you get when you combine fun and insight? Simulation!

We'll have time for a Q&A about statistics, too. (Do bring your calculator, please.)

Speaker: David Bock

2:15 – 2:30 pm **Closing**

RSVP by Thursday, November 7, 2013

Registration Form: <http://www.math.cornell.edu/Community/5080/index.html>

Questions? Contact Mary Ann Huntley

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