

# Michigan Math Club

Thursday at 4pm in the Nesbitt Room  
Free Pizza and Pop

## Long Division and Calculus for Integers

Eric Canton • 3 October 2019

Some time early in life we encounter long division: first with integers, and later with polynomials in one variable.

By studying the quotients and remainders gotten from iterating long division of polynomials, we are surprised to meet old friends from calculus. This in turn gives a new and unusual perspective on binary expressions for integers, or more generally prime-base expansions. This talk will be accessible to anyone who has done long division and taken calculus, and should be interesting to anyone intrigued by algebra, geometry, decimals, and/or number theory.

A stylized logo consisting of two yellow, blocky letters 'M' and 'M' with a black outline, positioned in the bottom left corner of the slide.