

Undergraduate Math Club

Fall 2006

2nd floor Nesbitt Common Room

Thursday, December 7, 4:10-5:00pm

(free pizza and pop, as always)

The Generalized Factorial

Benjamin Weiss

Abstract

In 1997 Manjul Bhargava defined a family of functions called the Generalized Factorials. In this talk we shall go over his definition and show that these functions all seem to have many of the useful properties of the normal factorial function. Recall that the normal factorial function takes a natural number n to $n!$, the product of the first n natural numbers. Finally, we shall present a number of unsolved problems; for example, what exactly do the generalized binomial numbers represent? Hopefully, people will leave with enough knowledge to spend their Study Days working on these unsolved problems.