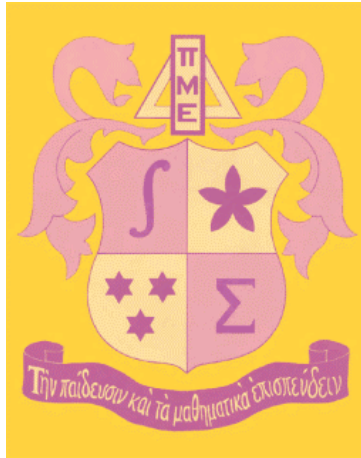# Pi Mu Epsilon

Thursday, April 25th
12:15-12:50 PM in Hume 101

"The Hardest Logic Puzzle Ever" and Logical Connectives

by Sam Cole

In 1986 logician George Boolos published "The Hardest Logic Puzzle Ever", a variation on the classic "Knights and Knaves" puzzle. Boolos' puzzle is as follows: "Three gods A, B, and C are called, in no particular order, True, False, and Random. True always speaks truly, False always speaks falsely, but whether Random speaks truly or falsely is a completely random matter. Your task is to determine the identities of A, B, and C by asking three yes-no questions; each question must be put to exactly one god. The gods understand English, but will answer all questions in their own language, in which the words for yes and no are da and ja, in some order. You do not know which word means which." In order solve this puzzle the logical connectives encountered in mathematics are needed to construct questions. The properties of these connectives and the solution to many variants of this problem will be presented.

We will provide pizza and drinks. Hope to see you on Thursday!