

Discrete Mathematics Seminar

Time: Friday, 30 November 2012, 2:00-3:00 PM
Room: 238 Derrick Hall
Title: Benjamin Franklin's Magic
Speaker: Dr. Rebecca Garcia, Department of Mathematics,
San Houston State University

Abstract:

In several letters written in the mid-1700s, Benjamin Franklin produced his version of magic squares and what he called his "magical circle of circles." A magic square is an arrangement of numbers in a square grid with rows, columns and diagonals adding to a common number. Similarly, a magic circle is an arrangement of numbers in a circular grid with annuli and radii adding to a common number. In this talk, we will revisit Benjamin Franklin's magic squares of order 8 and 16 and his magic circle of order 8. We will answer various questions on their construction and enumeration using modern techniques in algebra. Then, we will discuss a method observed by my undergraduate research group who used it to create the only known Franklin magic circle of order 16.