

1077-E1-1053 **Jim Fulmer***, jrfulmer@ualr.edu, and **Tom McMillan**, tcmcmillan@ualr.edu. *Exploring Prime Numbers in Classes with Preservice and Inservice Teachers.*

Prime numbers can be framed into a very interesting dialogue in classes for preservice and inservice teachers. Prime numbers have been studied for a long time. This session will focus on several topics about prime numbers: the prime number triangle, mirror primes, palindromic primes, Mersenne primes, Fermat primes, finding prime numbers by the sieve of Eratosthenes, Euler's formula for primes, counting primes, Sophie Germaine primes, largest-known prime, prime testing, and Goldbach's Conjecture. In addition, we shall discuss the question: Historically, is one a prime number or not a prime number? Some history of prime numbers will be included. The objectives of the presentation are: 1) To acquaint participants with the prime triangle, 2) To discover various patterns in the prime triangle, 3) To discuss a brief history of prime numbers, 4) To explore various types of prime numbers, and 5) To look at formulas to generate prime numbers. (Received September 15, 2011)