1056-05-1545 **Timothy D. Ferdinands*** (tdf3@students.calvin.edu), 2725 Ardmore SE, Grand Rapids, MI 49506. *Proving Summation Identities: The WZ Method versus Counting.*

Discovering and proving summation identities has always intrigued mathematicians. There are many different techniques for proving such identities. Two of the most effective techniques are the WZ Method and the Counting Technique. The WZ method is a computer-based technique developed by Herbert Wilf and Doron Zeilberger in the early 1990s. The Counting Technique is one of the oldest known methods for proving summation identities. This talk will introduce each of these methods and demonstrate the effectiveness of each one. This is joint work with Samantha Dahlberg. (Received September 22, 2009)